

**YOUR MAC HOLIDAY BUYING GUIDE**

Unique Gifts and Clever Projects to Please the Mac Fanatic, page 52

12.2000

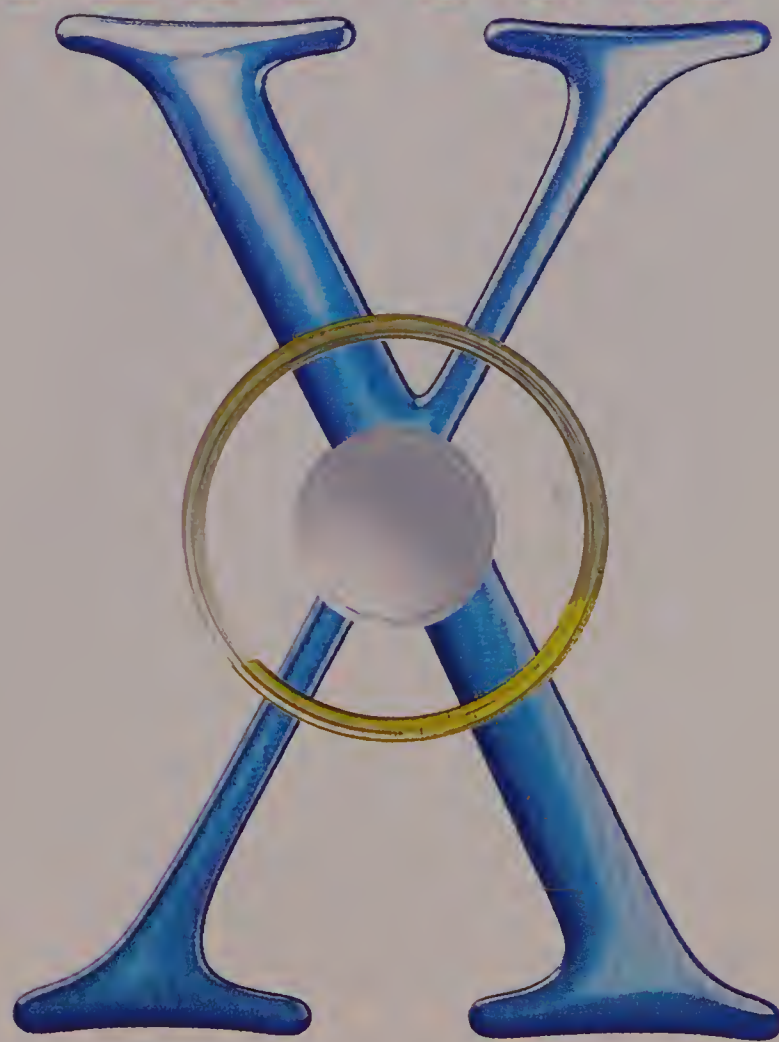
# Macworld

## GETTING A PERFECT OS X

Make the Mac  
OS X Beta  
Perform  
for **You**


New iBooks Score Big:  
DVD, 466MHz G3, and  
FireWire for \$1,799, page 88

Learn How To:  
Export Your iMovies, page 66  
Scan Anything, page 72



\$7.99 U.S./\$9.99 Canada






*CanoScan D660U  
Scanner*

*CanoScan N656U  
Scanner*

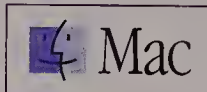
*CanoScan N1220U  
Scanner*



*BJC-85 Printer*

# Peripheral

Take a quick look around. You'll find a Mac® compatible Canon peripheral for just about any purpose you could imagine. From high-resolution printers and scanners to the world's best-selling portable printer, we've got what it takes to keep Mac users smiling. And with



## **The Canon Think Tank System™**

*The S400, S450 and BJC-8200 printers all feature individual ink tanks to reduce ink waste and save you money. Plus, the ink sensor system alerts you when you're running low.*

## **Award-Winning Portable Printer**

*Need a traveling companion for your iBook™ or PowerBook® G3? Our 3.1 pound\* BJC-85 Color Bubble Jet Printer was named "Best of Show" at the Macworld San Francisco 2000 Expo.*



# Vision

more than sixty years of imaging expertise built into every single detail, the term "state-of-the-art" is somewhat of an understatement. Come and see for yourself. Visit us on the Internet at [www.ccsi.canon.com/macfriendly](http://www.ccsi.canon.com/macfriendly) or call 1-800-OK-CANON for more information.

**Canon** KNOW HOW™

*BJC-8200 Printer*

*S450 Printer*

*S400 Printer*

*MultiPASS C555  
Multifunction Printer*

## Advanced Flatbed Scanners

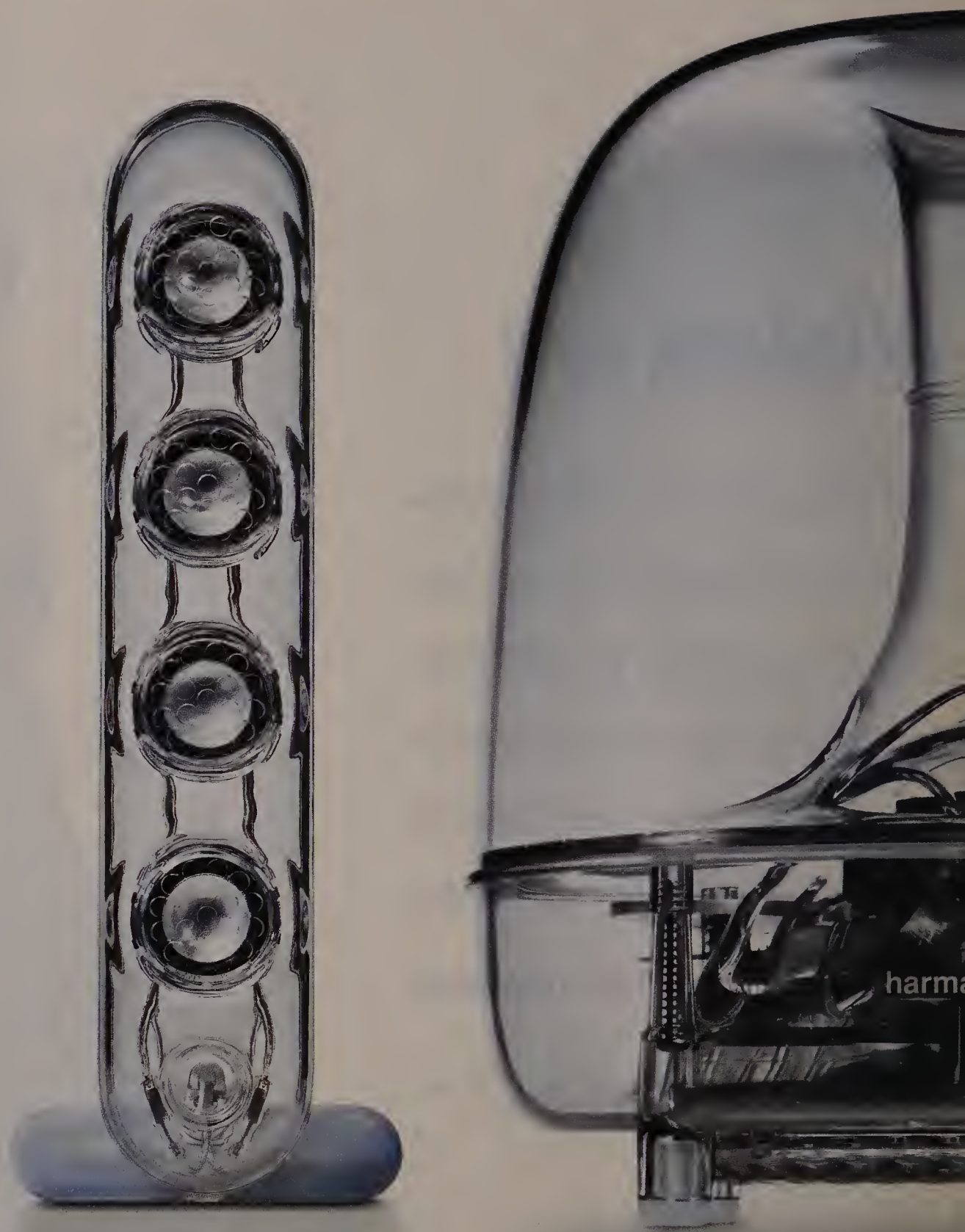
*Our new CanoScan® family showcases a host of innovative features including our Z-Lid™ Expansion Top (on select models) and a built-in 35mm film adapter on the CanoScan D660U Scanner.*

## Superior Multifunction Printers

*Print. Fax. Copy. Scan. After introducing the world's first Mac-compatible multifunction printer, we've taken technology to a new level with our MultiPASS™ C555 Multifunction Printer.*

and other countries. All other product and brand names are trademarks of their respective owners. Specifications subject to change without notice. \*4.5 pounds with AC adapter and optional battery pack. In Canada, call 1-800-263-1121.

Circle 23 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



**Disturb the peace.** Tranquility is highly overrated. Earsplitting high-SoundSticks speaker system, is most definitely not. For more seismic details,





fidelity sound, like the kind you'll get from our new 40-watt, USB-enabled  
check out [www.harman-multimedia.com](http://www.harman-multimedia.com). **harman/kardon**

Circle 3 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## Opinion

### 11 The Vision Thing

ANDREW GORE Once again, Apple is not going out of business.

### 23 Feedback

Readers respond.

### 121 The Game Room

ANDY IHNATKO Our gaming expert has gift ideas that are sure to please the gamer in your life—including you.

### 192 The Desktop Critic

DAVID POGUE Has public hysteria about privacy overtaken our common sense?

## Buzz

**26 New iBooks, filmmaker Jon Else, Canon's Elura 2MC, and Corel's Mac battle plan.**

## How-to

### 66 Wrap Up Your iMovies

### 72 Scan Anything

JANET ASHFORD Think of your scanner as a camera, and capture images of just about any object you want.

### 76 Get to the Good Stuff

GENEVIEVE MARGHERIO When your good photo has a bad background, separate them with Adobe Photoshop's Layer Mask.

### 80 Make OS X More Familiar

GIL LOYOLA AND JONATHAN SEFF OS X is a radically new operating system, but a few custom touches can smooth your beta exploration.

### 85 Mac 911

CHRISTOPHER BREEN Read tips on formatting e-mail, finding old system software, and retaining software updates.

December 2000

# Macworld

www.macworld.com

Incorporating MacUser

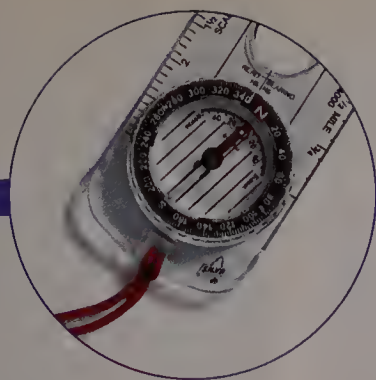
## MACWORLD'S HOLIDAY GIFT GUIDE

The holidays are here again, and *Macworld* can show you how to create homemade gifts, find the coolest stocking stuffers, and even turn your home movies into presents for family and friends.

**52**







## OS X-Beta Survival Guide

DAVID POGUE AND FRANKLIN N. TESSLER

Now anyone can download a beta version of OS X, a new operating system with both promise and peril. If you're brave enough to explore it, you can avoid the landmines by following our hands-on installation and operating advice.

**38**

### Some Assembly Required

Avoid crowded malls this holiday season by creating gifts and decorations on your Mac.

**55**

### Satisfaction Guaranteed

Looking for some cool presents for the holidays? Check out Macworld's pick of great gifts with high-tech flair for everyone on your shopping list.

**62**

### Wrap Up Your iMovies

CHRISTOPHER BREEN Editing and putting together an iMovie is easy and fun. But once you're done, how do you share it with your friends and family? Read our guide to converting your masterpiece into forms that anyone can watch.

**66**

Plus, **Scan Anything** and **Get to the Good Stuff** in *How-to* give you step-by-step instructions for crafting the perfect presents we describe.



### Macworld.com

Online-exclusive reviews, news, and opinion on the latest in the Mac universe—in-depth iMovie 2 tutorials, the truth about death and taxes, and more.

### On the Cover:

Photograph by Suzanne Roady

## Reviews

- 88 **★★★★½** Apple iBook;  
**★★★★½** Apple iBook Special Edition  
Consumer portables
- 91 **★★★★** GoLive 5.0  
Web authoring software
- 95 **★★★★** Flash 5.0  
Web animation software
- 99 **★★★★** Agfa SnapScan e40;  
**★★★★** Agfa SnapScan e50;  
**★★★★** Canon CanoScan N1220U;  
**★★★★½** Epson Perfection 1640 SU;  
**★★★★** HP ScanJet 5300c;  
**★★★★** HP ScanJet 5370c;  
**★★★★½** Microtek ScanMaker 4700;  
**★★★★** Microtek ScanMaker X12USL;  
**★★★★** Umax Astra 4000U  
USB flatbed scanners
- 104 **★★★★** Quicken Deluxe 2001  
Personal finance software
- 106 **★★★★** Apple iMac;  
**★★★★** Apple iMac DV  
Consumer systems
- 107 **★★★★** KnockOut 1.5  
Masking software
- 108 **★★★★½** Palm m100  
Handheld organizer
- 109 **★★★★** CopyAgent 1.0  
Backup-acceleration utility
- 110 **★★★★½** Filterit 3.0;  
**★★★★** Vector Studio 1.0  
Illustrator plug-ins
- 111 **★★★★** Videodelic  
Video-art synthesizer
- 113 **★★★★** Studio Artist 1.5  
Graphics synthesizer
- 114 **★★★★½** PowerCADD 2000  
CAD software
- 117 **★★★★** InterMapper 3.0  
Network manager
- 117 **★★★★½** Suitcase 9  
Font manager
- 117 **★★★★½** B4  
Hammond B3 simulator
- 119 **★★★★** PlayerPro 5.6  
Music editor
- 119 **★★★★** Deus Ex 1.0  
Game
- 119 Macworld.com Reviews  
More reviews online

THE ART  
JUST  
GOT A  
NEW  
STATE.





## **GCC INTRODUCES THE ELITE 21 SERIES, AND A NEW PRICE/PERFORMANCE STANDARD FOR WORKGROUP PRINTERS.**

If records are made to be broken, and bars are set to be raised, then what we have here is your typical bar-raising event.

Our Elite™ 21 Series laser printers aren't just the fastest we've ever made (21 pages per minute); they're also the gathering place for an array of features you won't find elsewhere in their category. Including...

A new PowerPC-based processor that handles even complex documents quickly and effortlessly, with high (1200 x 1200 dpi) resolution.

Enhanced connectivity, so that your printer arrives fully network-ready.

A flash ROM feature that guarantees you'll always have access to the most current software available.

Compatibility with both Mac and Windows platforms.

Plus such utilities as double-sided printing and singularly dexterous paper-handling capabilities, with automatic collating, three motorized paper feeding trays, and an envelope feeder.

All this from the company that also set standards for hand-holding. With 24/7 technical support for the entirety of the one-year warranty period. Plus a 30-day money-back guarantee and our Platinum Exchange Warranty, which provides you a replacement part or printer by the next business day if there's ever a problem we can't solve over the phone.

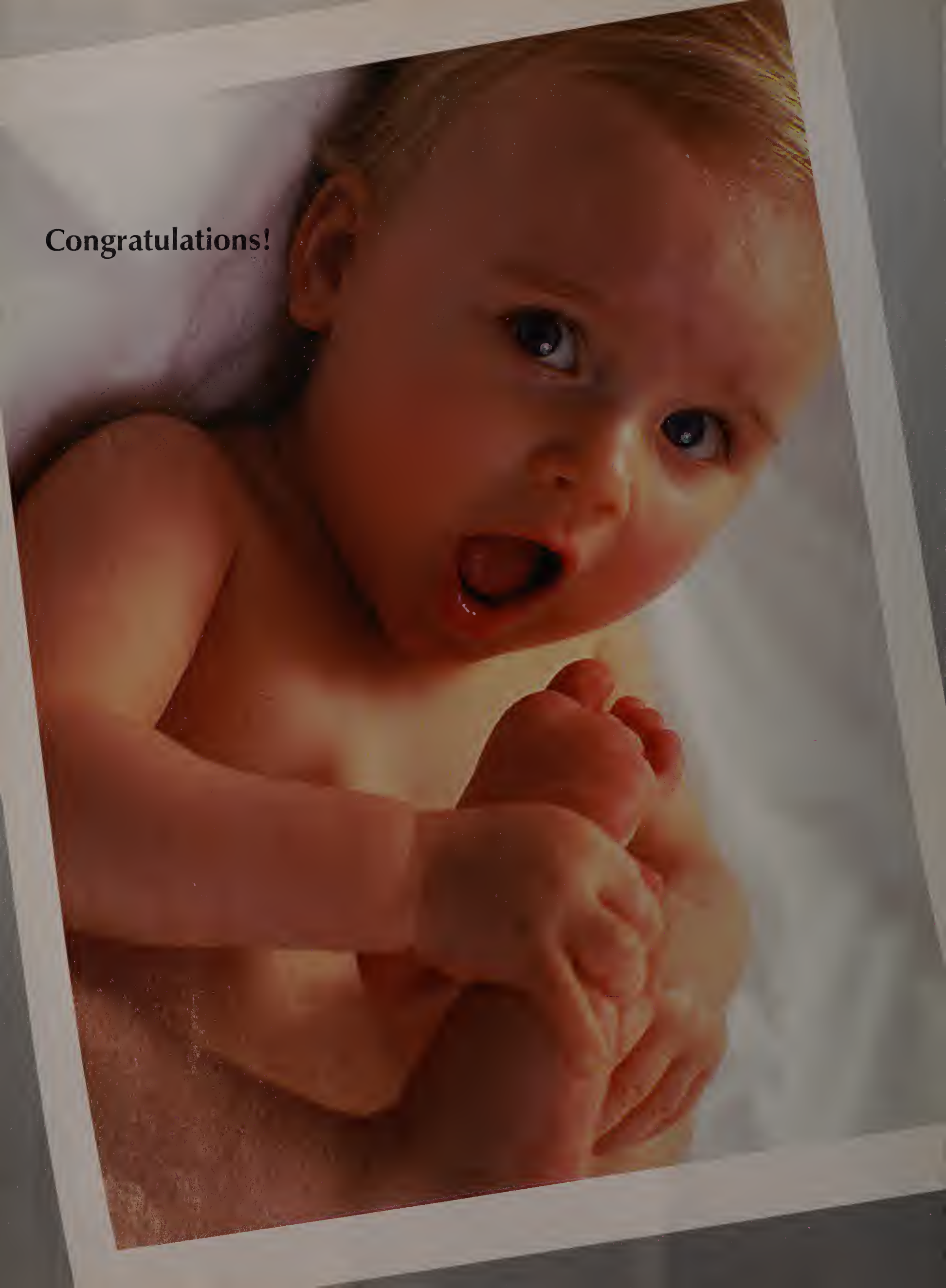
But the Elite 21 Series is different from its competitors in another important respect: you buy it direct, minus bricks, mortar and middlemen. As a result prices start at just \$1299.

You see, our printers aren't just about raising bars; they're about lowering barriers at the same time.

**To order or find out more about our special introductory offer, call 1.800.422.7777 or visit [www.gccprinters.com/macworld](http://www.gccprinters.com/macworld)**



**Congratulations!**





# OLYMPUS®

Focus On Life

## The Olympus P-400 Dye-Sublimation Photo Printer has arrived!

## It's a 26-pound Digital Darkroom.

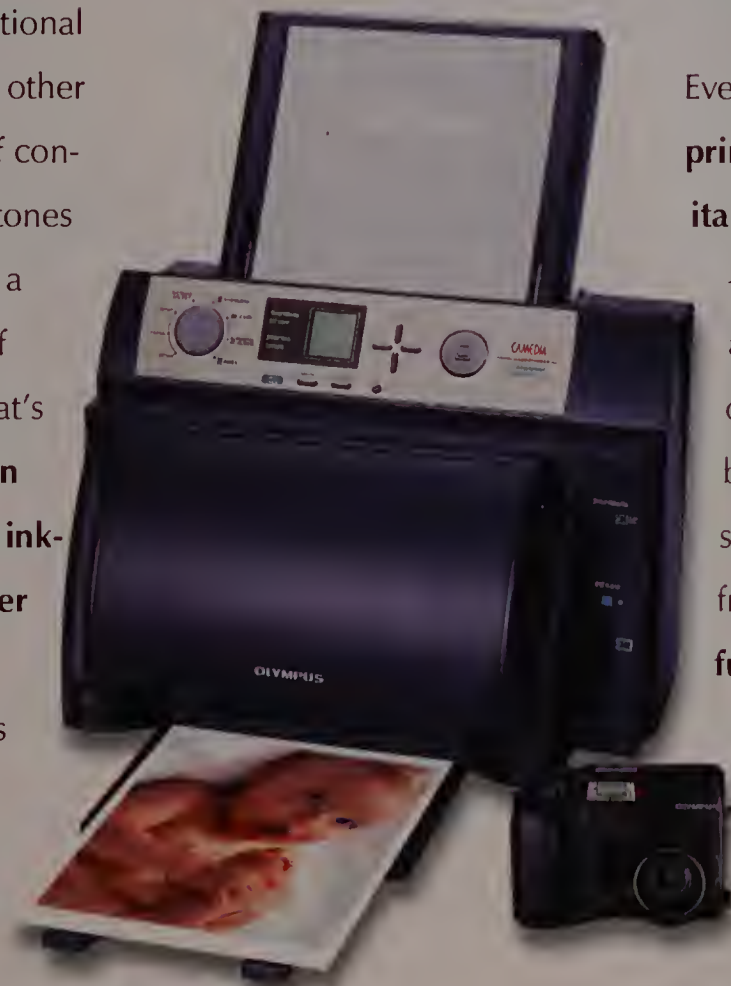
The Olympus P-400 uses **dye-sublimation technology** to produce **true continuous-tone images**, just like traditional photographs. Inkjet printers, on the other hand, can only create the *illusion* of con-



tinuous tones by using a matrix of dots. That's why **even the best inkjet printer is no**

**match for the P-400** when it comes to image detail and color vibrancy.

Unlike typical inkjet printers, the P-400 delivers **fade-resistant images with archival qualities** comparable to traditional photographs. And while inkjet printers will test your patience, the P-400 **can output an 8" x 10" print<sup>1</sup> in about 90 seconds.<sup>2</sup>**



Olympus P-400 Dye-Sublimation Photo Printer

**CAMEDIA**  
Digitally Inspired

You won't find a more **versatile**, more **convenient** printer than the Olympus P-400. Its **parallel and USB interfaces** let you print from your favorite PC or Mac photoediting application.

Even without a computer, you can **print images directly from your digital camera's removable media**

—including SmartMedia,<sup>TM</sup> Type I and II CompactFlash,<sup>®</sup> and Memory Stick<sup>®</sup>—thanks to the P-400's built-in SmartMedia and PC Card slots. Print on the spot, choosing from **numerous built-in print functions**—such as sepia-tone or black-and-white conversion, crop and enlarge, borders and vignettes.

Finally, you should know the Olympus P-400 can be yours for **under \$1,000<sup>3</sup>**—about one-fifth the cost of competitive dye-sublimation printers of comparable output size. You can learn more at [P400.olympus.com](http://P400.olympus.com).

# VectorWorks

## *Object-Based CAD for Professionals*



Design is ever changing, dynamic. From initial concept, through production and revisions, the entire process becomes faster and easier with VectorWorks.

### Productivity of Object-Based Design

VectorWorks' next-generation Object technology accelerates the design process. Now, creating common design elements is effortless. Objects such as doors, windows, nuts and bolts can be created and edited with a simple mouse click.

### Strength and Proven CAD Technology

The Best Selling CAD software on the Mac and, an emerging standard on Windows, VectorWorks provides everything you need for 2D drafting and 3D modeling. But, that's not all. An integrated database tracks costs and materials, and built-in presentation capabilities can literally help you sell the job.

### The VectorWorks Advantage

With VectorWorks you get it all—The productivity of Object-Based Design combined with the flexibility and control of proven CAD technology.

Giving you an extra edge, VectorWorks ships FREE solutions for Architecture, Landscape, DTM, Theatre Lighting and Mechanical Engineering among others. And, VectorWorks' built-in scripting environment makes creating custom solutions, and automating routine tasks easy. No other CAD program offers so much for so little!

### Add-on Products Expand VectorWorks Core Capabilities



RenderWorks—Bring your designs and animations to life with realistic textures and dramatic lighting and shadowing effects.



VectorWorks ARCHITECT—The ultimate in architectural CAD. Integrate Design, Production and Project Management into a system delivering unparalleled productivity.

**N** NEMETSCHKEK  
NORTH AMERICA



ANDREW GORE

# Don't Panic!

APPLE'S RECENT  
STOCK SLIDE  
IS A STUMBLE,  
NOT A FALL

Can I really be writing this column again? Just the other day I was joking with some of the *Macworld* editors that the time had come to delete that "Why Apple Isn't Dying" column template. Finally, I'd told them, people could see that Apple had a sustainable business, that whatever fluctuations in the market might come, the Mac had clearly carved itself a space—in both the consumer market, with the iMac and the iBook, and the high-end market, with the G4—and that soon Apple would be able to tie them both together with a robust, easy-to-use, modern operating system. Really, all that remained was for Apple to sustain momentum and, well, not make any major mistakes.

Then Apple's stock took a 50 percent nose dive in one day. Why? Because the company announced that its profits for the latest quarter were not going to meet Wall Street's projections.

Let me stress this point: Apple didn't say it was going to lose money; it just said it wasn't going to make as much money as everyone thought.

And in that moment, the sky started to fall.

So, here I am, days after bragging that I could finally trash that template, dusting it off again.

## Don't Panic Reason No. 1: Everybody's Doing It

Although it would be hard to tell based on some of the predictions of Apple's demise (see "Don't Panic

Reason No. 3"), Apple wasn't the only Big Tech firm to get slammed in September. A number of hardware companies got hammered, including the unsinkable Intel, which dropped from about \$85 at the beginning of the month to \$40 by the end of the quarter. It was a bad month for hardware. The anticipated surge in education sales didn't materialize, and the average consumer, so overburdened with debt and the sheer exhaustion that can be brought about only by unchecked avarice, took a break when the analysts predicted they'd be spending.

And, in case no one noticed, the entire tech sector has been bleeding for months now. Even Microsoft has been hemorrhaging. Last I checked, Microsoft stock was selling for just a little more than \$50, down from about \$120 at the beginning of the year.

## Don't Panic Reason No. 2: This Is Not Amelio's Apple

Despite what some are saying, there are almost no similarities between Steve Jobs's Apple and Amelio's Apple just three years ago. For example, using industry standard calculations, Apple stock is currently trading at less than a third of its intrinsic value. (Want to see for yourself?

Use the stock-evaluator function of Quicken.com.) The company's

debt:equity ratio is the lowest it's been in four years—it was at its highest under Amelio's stewardship—and by every measure of growth, Apple is performing at or above industry standard.

Sounds like a company on the brink to me.

## Don't Panic Reason No. 3: Read with a Grain of Salt

I know this is going to sound a little paranoid, but there are some journalists who have been just waiting

*continues*



for Apple to stumble.

This may come as a surprise to you, but Apple is not the most beloved of technology firms in the media corps. The reasons for this animosity are complex and long-standing, but the result is that some folks in the mainstream media would like nothing better than to stick the knife in, given a chance.

Now, I also believe these folks are in the minority. But combine these with those journalists who remember John Sculley's Apple, when they wrote glowing reports on technology promise after technology promise (remember the Newton?), only to feel like they'd been had. You'll get the sense that there is an undercurrent of distrust when it comes to Things Apple—and perhaps a tendency to be a bit quick on the panic button when anything negative happens.

#### **Don't Panic Reason No. 4: There Are Quick Fixes**

Apple is no longer in the computer business; it's in the style business. It has successfully managed to become the Gap of technology. And the problem with the style business is that nothing tanks worse than last season's fashion.

The iMac, for all its innovations, is three years old. And no matter how refined the latest design, in today's style-conscious marketplace that's too old. It's time for Apple to come up with something new for consumers. Before you say it: the Cube's not it.

Get something new out for consumers, update the PowerBook line (the latest iBooks make it really apparent how badly Apple's high-end portables need an update), get the Cube down to a more reasonable price, and you've got what amounts to a nice, quick fix.

It's true that, in the long run, Apple will need to expand its product line into new spaces to continue growing. I'm hoping Apple will apply what it's learned about style, functionality and ease-of-use to a new line of wireless Internet devices, preferably with a partner in the cell phone business. The possibilities boggle the mind. But then again, my cell phone is practically grafted to my ear.

#### **Don't Panic Reason No. 5: It's Just Too Soon.**

This point is so important, it's worth repeating: Apple is still making money. It's got money in the bank, its stock is hugely undervalued, and it still builds some of the most desirable products in computerdom. It's simply too soon to consider the company's latest results anything more than a stumble. And let's face it, the company's got a lot on its plate: the first major OS transition since the Mac shipped, the G4 in need of more megahertz or a worthy successor, a much more complex product line, and a marketplace with a serious case of attention deficit disorder. That's a lot to juggle. It only makes sense that we'd see a few missteps. But one soft quarter is not a disaster.

Let's give Apple at least until next summer. If OS X hasn't shipped, if the company hasn't made some significant updates to the product line, if developers haven't signed up for the new OS, and if Apple hasn't at least given some indication of new directions for the future, well, maybe then it'll be time to worry. **m**

ANDREW GORE is *Macworld's* editor in chief. To comment on this column, please visit the Vision Thing forum at [www.macworld.com/columns/visionthing/forum.html](http://www.macworld.com/columns/visionthing/forum.html).

# Macworld

VP OF CONTENT/EDITOR IN CHIEF Andrew Gore

EXECUTIVE ASSISTANT TO

THE VP OF CONTENT Shane Clark

EDITOR, MACWORLD.COM Jason Snell

EXECUTIVE EDITOR Schalle Sawyer McFarland

SENIOR EDITOR, REVIEWS Linda Comer

SENIOR EDITOR, MACWORLD.COM Lisa Schmeiser

SENIOR EDITOR, HOW-TO Terri Stone

ASSOCIATE EDITORS Lotus Abrams,

Jennifer Berger,

Mathew Honan,

Kelly Lunsford,

Philip Michaels,

Jonathan Seff

ASSISTANT EDITORS Brett Larson,

Adrienne Robillard

EDITORIAL ASSISTANT Bonnie Huie

#### CONTRIBUTING EDITORS

Henry Bortman, Christopher Breen, Adam C. Engst, Bruce Fraser, Jim Heid, Ted Landau, Deke McClelland, Tom Negrino, Nancy Peterson, David Pogue, Stephan Somogyi, Franklin N. Tessler

#### LAB

DIRECTOR OF PRODUCT EVALUATION Kristina De Nike

TEST MANAGER James Galbraith

SENIOR LAB ANALYST Jeffy K. Milstead

LAB ANALYST Gil Loyola

ASSOCIATE TECHNICAL ANALYST Ulyssis Bravo

LAB ADMINISTRATOR Jasan Cox

#### COPY EDIT

MANAGING EDITOR Jennifer Scholl

ASSISTANT MANAGING EDITOR Charles W. Purdy

COPY EDITORS Diane Ollis,  
Sue Voelkel

#### ART AND DESIGN

DESIGN DIRECTOR Eleanor Leishman

ASSOCIATE DESIGNER Jackie Goodman

DESIGN ASSOCIATES Amy Conger,  
Alissa Mach

PREPRESS CONSULTANT Stephen Sugg

#### MACBUY.COM

SENIOR PRODUCER Suzanne Courteau

ASSISTANT PRODUCER Cathy Begien

#### INTERNATIONAL EDITORS

Steven Noble, Australia; Bernard Le Du, France; Andreas Borchert, Germany; Enrico Lotti, Italy; Yoshio Moriya, Japan; Tomasz Bitner, Poland; Daniel de Blas, Spain; Nils Holmlöv, Sweden; Anderson Huang, Taiwan; Bahattin Apak, Turkey; Simon Jary, United Kingdom





Flatbed Laser  
Multi-Function —  
As Low as \$699

Flatbed Color  
Multi-Function  
As Low as \$499

Laser Multi-Function  
As Low as \$399

Color  
Multi-Function  
As Low as \$299

## Machines That Do Everything.

Affordable Multi-Function Center® Models—one less thing you'll have to wait for, thanks to our Mac compatible MFCs. Fact is, we've developed some very smart all-in-one solutions. That's right, all-in-one, as in printing, copying, scanning and even faxing—all in one compact unit. Plus, your MFC is available in zippy 12 page per minute laser, color inkjet, flatbed and sheet-fed models. When it comes to multi-function, think better... think Brother.



iMac DV+

PowerMac G4

iBook

G4 Cube —

## For Machines That Mean Everything.

Various models available at: MACWAREHOUSE, CDW, MACZONE, J&R COMPUTER WORLD,  
OFFICE DEPOT, OFFICEMAX, FRY'S, MACCONNECTION AND STAPLES

At your side.™

# brother®

© 2000 Brother International Corporation, Bridgewater, NJ • Brother International Corporation, Nagoya, Japan  
For more information please call the Brother Fax-Back System at 800-521-2846 or visit our web site at [www.brother.com](http://www.brother.com)



shop  
anthro.com

New colors  . . .



- Prices from \$149
- Great accessories to add
- Lots more choices available
- Shop online or call 800-325-3841

Circle 127 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

# Macworld

<b>PRESIDENT AND CEO</b>	Colin Crawford
<b>VP/CHIEF OPERATIONS OFFICER</b>	Stephen Daniels
<b>BUSINESS MANAGER</b>	Eos de Feminis
<b>ACCOUNTING COORDINATOR</b>	Randa Bittner
<b>BILLING MANAGER</b>	Ricardo Sandaval
<b>VP OF HUMAN RESOURCES</b>	Sue Murphy
<b>HUMAN RESOURCE MANAGER</b>	Su-Tsen Wu
<b>CHIEF INFORMATION OFFICER</b>	Lynn Heiberger
<b>INFORMATION TECHNOLOGY</b>	
<b>DIRECTOR</b>	Michael Dawson
<b>IT MANAGER</b>	Jennifer Torres
<b>IT SPECIALIST</b>	Jose "Peps" Jara
<b>RECEPTIONIST</b>	Cheryl Richardson
<b>OFFICE ASSISTANT</b>	Marvella Simpson

## DISPLAY ADVERTISING SALES

<b>VP OF SALES/PUBLISHER</b>	Steve Plevin (415/243-3509)
<b>ASSOCIATE PUBLISHER, EAST</b>	Cynthia Ramsey (973/243-1197)
<b>SALES BUSINESS MANAGER</b>	Gabrielle Lindsley (415/243-3526)
<b>SALES &amp; MARKETING COORDINATOR</b>	Laura Ross (415/243-3642)
<b>NATIONAL ACCOUNTS MANAGER</b>	Paul Bonarriga (508/533-4020)
<b>ACCOUNT EXECUTIVE</b>	Jo Zottarelli (516/277-4134)
<b>NATIONAL ACCOUNTS MANAGER</b>	Sara Culley (831/768-8472)
<b>ACCOUNT EXECUTIVE</b>	Margaret Level Green (415/243-3582)
<b>REGIONAL ACCOUNTS MANAGER</b>	Coretta Wright (415/243-3615)
<b>SALES ASSOCIATE</b>	Katherine Lebiada (415/243-3577)
<b>SALES ASSISTANT</b>	Jim DeCleene (415/243-3662)
<b>SALES ASSISTANT</b>	Janecke Hausken (415/243-3583)
<b>SHOWCASE ACCOUNT MANAGER</b>	Niki Stranz (415/243-3664)
<b>SHOWCASE ACCOUNT MANAGER</b>	Carol Johnstone (415/243-3691)
<b>SHOWCASE ADMINISTRATIVE ASSISTANT</b>	Franck Zamora (415/243-3628)
<b>ONLINE SALES MANAGER</b>	Doug Dettelsen (415/243-3578)

## MARKETING

<b>DIRECTOR OF MARKETING</b>	Hilary Weber
<b>MARKETING COMMUNICATIONS</b>	
<b>MANAGER</b>	Sharon L. Cordesse
<b>MARKETING SERVICES MANAGER</b>	Tara C. Gibb
<b>ONLINE PROGRAMS MANAGER</b>	Joe Raffetto
<b>MARKETING COORDINATOR</b>	Bryan Irwin

## PRODUCTION

<b>PRODUCTION DIRECTOR</b>	Steve Spingola
<b>PREPRESS TECHNICIAN</b>	Alan Anzalone
<b>AD COORDINATOR</b>	Megan Matteoni

## ONLINE

<b>SENIOR TECHNOLOGY DIRECTOR</b>	Paul Forrester
<b>ONLINE PRODUCTION MANAGER</b>	Ron Neal
<b>ONLINE PRODUCTION ASSISTANT</b>	Benjamin Edlavitch
<b>WEBMASTER</b>	Michael R. Evans

Macworld is a publication of Mac Publishing, L.L.C. Macworld is an independent journal not affiliated with Apple Computer, Inc. Macworld, MacUser, MacWeek, Macworld Interactive, Macworld Shopper, MW, MW Lab, MW Shopper, The Desktop Critic, Expert Graphics, Quick Tips, Star Ratings, Buyers' Tools, Streetwise Shopper, and Conspicuous Consumer are registered trademarks of Mac Publishing, L.L.C. Apple, the Apple logo, Mac, and Macintosh are registered trademarks, and MacLetter and PowerBook are trademarks, of Apple Computer, Inc. Printed in the United States of America. Copyright © 2000 Mac Publishing, L.L.C. All rights reserved.



1200 dents and 800 scratches.  
Make that 1200 dents and 798 scratches.



A beat-up negative impresses no one. Fortunately, the Super Coolscan® 2000 film scanner uses Digital ICE™ technology to automatically remove scratches and other surface defects. And of course there are superior Nikkor optics for great image quality, Nikon's Color Management System that ensures color matching, hot swappable film adapters, and auto-feed. This isn't just a scanner. This is one mean machine. 1-800-NIKON-UX.



Nikkor Optics • Multi-Sample Scanning • Exclusive LED Technology • 3.6 Dynamic Range • Altamira Genuine Fractals™ 2.0 LE software



# Compare the best Mac products at the best prices.



The Macworld PriceFinder reviews and compares out-the-door prices of available Macintosh products from a wide array of online vendors. You'll quickly find the best product for your needs, and you'll also find the best price. Shop and compare computers, new and upgrade software, printers and more – it's all there.

The Macworld PriceFinder is your comprehensive resource for choosing the best Macintosh products, getting the lowest prices and buying with confidence from the vendor of your choice.

## The Macworld PriceFinder

[www.macbuy.com](http://www.macbuy.com)

©2000 Mac Publishing, L.L.C. Macworld.com are trademarks of Mac Publishing.  
Macintosh is a registered trademark of Apple Computer, Inc.

# Macworld

#### HOW TO CONTACT MACWORLD

##### Subscription Information and Services

Phone 800/288-6848 or  
850/682-7624, from the United States  
and Canada  
303/604-7445, from all other locations

U.S. Mail Macworld Subscription Services  
P.O. Box 54529, Boulder, CO 80322-4529  
(Include a mailing label with correspondence.)

World Wide Web <http://service.macworld.com> (for service) or  
<http://subscribe.macworld.com> (to order)

E-mail [macworld@madota.com](mailto:macworld@madota.com)  
(Send your full name and the address of which  
you subscribe; do not send attachments.)

Fax 850/683-4094, from the United States  
and Canada  
303/604-0518, from all other locations

##### Subscriptions

The one-year (12-issue) subscription rate is \$34.97 in the United States and \$54.97 for all other countries. The rate for a one-year (12-issue) subscription with the monthly CD-ROM is \$54.97 in the United States and \$74.97 for all other countries. Checks must be made payable in U.S. currency to Macworld. Please allow 3 to 6 weeks to receive your first issue or for changes to be made to an existing subscription.

##### Back Issues of Macworld

Back issues (subject to availability) are \$8 per issue for U.S. delivery (\$12 outside the United States); prepayment in U.S. currency to Macworld is required. Send check or money order to Back Issues, Macworld, P.O. Box 53131, Boulder, CO 80322-3131.

##### Reprints and Permissions

You must have permission before reproducing any material from Macworld. Write to Macworld, Reprints and Permissions, 301 Howard St., 16th Fl., San Francisco, CA 94105; include a phone number. To order reprints of your company's editorial coverage, call Reprint Management Services at 717/399-1900; fax 717/399-8900; e-mail [soles@rmsreprints.com](mailto:soles@rmsreprints.com).

##### Mailing Lists

We periodically make lists of our customers available to mailers of goods and services that may interest you. If you do not wish to receive such mailings, please write to us at Macworld, P.O. Box 54529, Boulder, CO 80322-4529. Please include a copy of your mailing label.

##### Macworld on Microfilm

Macworld is available on microfilm and microfiche from UMI, 300 N. Zeeb Rd., Ann Arbor, MI 48106-1346; 734/761-4700.

##### Macworld Editorial

The editors of Macworld welcome your tips, compliments, or complaints. Stories and product reviews from past issues can be located at [www.macworld.com](http://www.macworld.com). We are unfortunately unable to look up stories from past issues; recommend products; or diagnose your Macintosh problems by phone, e-mail, or fax. Contact Apple toll-free at 800/538-9696, ext. 500, for information on user groups in your area.

Our offices are located at 301 Howard St., 16th Fl., San Francisco, CA 94105; 415/243-0505, fax 415/442-0766.

**LETTERS TO THE EDITOR** Direct all comments and suggestions regarding any aspect of the magazine to [letters@macworld.com](mailto:letters@macworld.com). Due to the high volume of mail received, we can't respond personally to each letter. We reserve the right to edit all submissions. All letters published in Macworld or Macworld Online become the property of Mac Publishing.

**MAC 911** Send your questions or tips on how to use Mac computers, peripherals, or software to Macworld, Mac 911, 301 Howard Street, 16th Floor, San Francisco, CA 94105; fax 415/442-0766; or e-mail [mac911@macworld.com](mailto:mac911@macworld.com). Please include your name, address, and telephone number. To share tips and discuss Mac problems with other Mac users, visit the Mac 911 Forum ([www.macworld.com/subject/mac911](http://www.macworld.com/subject/mac911)).

**MACWORLD EXPO** As the flagship sponsor of Macworld Conference and Expo, Macworld encourages all subscribers to attend this exciting biennial industry event. For more information about registration, exhibitor lists, conference schedules, dates, and much more, please visit [www.macworldexpo.com](http://www.macworldexpo.com).





# APC introduces the best protection available for your Mac.

## 8 million computer users can't be wrong about APC power protection

Don't let a lightning storm destroy your Mac system in the blink of an eye. Your hard drive, modem and RAM are all at risk, not to mention peripherals like your zip drive, scanner, monitor and printer. Rely on an APC Back-UPS Pro® to save your investments from high voltage surges.

APC power protection also provides clean, continuous power that lets you function without frustrating interruptions, unlike cheap power strips that don't prevent any of the power problems that can cause keyboard lock-ups, systems crashes, and lost Internet connections.

And if your system is ever damaged by a surge, even lightning, APC's Lifetime Equipment Protection Policy will pay up to \$25,000 to replace your equipment.

\* (see policy for details)

Discover why 8,000,000 customers trust in APC's Legendary Reliability and protect your Mac system with an APC power protection unit today.



### An APC Back-UPS Pro 500 USB provides:

- Emergency battery power for continuous uptime to help save your data through brief power outages
- Auto-shutdown software that saves your files and data, even when you're away from your computer
- Audible and visible alarms alert you to power events as they occur
- \$25,000 Equipment Protection guarantee
- 2 year comprehensive warranty
- iMac colored configurable speaker guards to match your computing environment



APC Back-UPS Pro® 500:  
"APC's latest plugs into a USB port, making it completely painless to protect your PC from power snafus and electrical spikes."  
- PC Computing 4/99



**APC**  
Legendary Reliability™



## Enter to win a clear APC Back-UPS Pro® 500 for your Mac!

Enter to win APC's legendary power protection for your Mac, a \$179.99 value! All entrants will also receive an "Are You at Risk" Kit. (See APC's Web site for complete promotion details)

Enter now: Visit <http://promo.apcc.com> Key Code v793z • Call 888-289-APCC x4014 • Fax 401-788-2797

©2000 American Power Conversion. All Trademarks are the property of their owners. APC1D0EF-USA • PowerFax: (800)347-FAXX • E-mail: [apcinfo@apcc.com](mailto:apcinfo@apcc.com) • 132 Fairgrounds Rd., West Kingston, RI 02892 USA

Circle 73 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)





© 2006 Apple Computer, Inc. All rights reserved. Learn more about the new Mac OS X operating system at [apple.com/macosx](http://apple.com/macosx). The Mac OS X operating system is a trademark of Apple Computer, Inc., registered in the United States and other countries. Mac OS X is a trademark of Apple Computer, Inc., registered in the United States and other countries. All other trademarks are the property of their respective owners.



[www.splatterpunk.com](http://www.splatterpunk.com)

**Adobe GoLive.  
Plays well on the web.  
Plays well with others.**

It's the ultimate head rush. Develop your ideas from concept to final production with Adobe® GoLive™ software. GoLive uses the familiar Adobe interface, so you can design and deliver finished websites in no time. What's more, it works seamlessly with programs you already know, like Adobe Photoshop®, Illustrator® and LiveMotion™. With our all new 360Code™ feature, your source code stays tight, clean and unaltered. GoLive is also available for both Windows® and Macintosh® platforms. Now that's hardcore. Check out Adobe GoLive for yourself at [www.splatterpunk.com](http://www.splatterpunk.com)

ADOBE  
LIVEMOTION

ADOBE  
PHOTOSHOP

ADOBE  
GOLIVE

ADOBE  
ILLUSTRATOR

ADOBE  
PREMIERE

ADOBE  
AFTER EFFECTS

ADOBE WEB  
COLLECTION



**Adobe**

**Inspiration becomes reality.™**

# The world's largest computer makers buy our memory direct.

[ *Genius.* ]

Buy your memory direct from one of the largest memory manufacturers in the world. Performance, reliability, selection and factory-direct savings — **Crucial Technology**, a division of Micron.

## **Crucial is your source for Macintosh memory.**

Receive a 10% discount for ordering online. You can't get this quality for a lower price, anywhere.

Upgrades for popular Macintosh models such as:  
iMac, Power Mac G3, iBook and Power Mac G4.

**64 MB**  
**\$66<sup>59</sup>**  
As low as...

Crucial prices reflect an automatic 10% discount for ordering online. Prices were current as of 9/25/00; however, they can (and do) change daily. ©2000 Micron Semiconductor Products, Inc. All rights reserved. Crucial Technology and the Crucial logo are trademarks of Micron Technology, Inc., and Micron is a registered trademark of Micron Technology, Inc. All other brands and names used herein are the property of their respective owners. Crucial Technology is a division of Micron Semiconductor Products, Inc. Phone 208-363-5500. Fax 208-363-5501. E-mail [crucial.sales@micron.com](mailto:crucial.sales@micron.com). Crucial Technology is not responsible for omissions or errors in typography or photography.

Online discounts for over 49,000 upgrades at:

**[www.crucial.com](http://www.crucial.com)**

or call toll-free 1-888-363-3082



Power = Crucial  
RAM



JDennis

Illustration by Jeremy Dennis

**The Memory Experts™**

**crucial®**  
TECHNOLOGY  
*A Division of Micron®*



# FireWire with a DIFFERENCE

VST's line of portable USB, FireWire® and PowerBook® peripherals represent the ultimate in performance, ultra-compact, light-weight packaging, and plug-and-play ease of use.

## Taking FireWire beyond the limits

VST's New FireWire RAID Array packs 120GB into the smallest possible space, supports RAID levels 0 and 1 simultaneously, and even operates on a PowerBook Li-Ion battery for up to three hours of on-location use.

VST's New FireWire RAID Array is a powerful tool for demanding professional applications, such as video and audio broadcasting, where large amounts of digital video, graphics and music must be captured and manipulated in real time for storage or editing. For performance and high capacity in FireWire storage VST FireRAID™ is the solution!

Visit us at [www.vsttech.com](http://www.vsttech.com) to learn more about this and other innovative products designed to simplify the digital lifestyle.



**Special Offer:**  
Sound Jam MP Free  
& Aladdin Software  
included on all Ultra-Thin Drives

### FireWire Hard Drive

Our amazing, FireWire hard drive provides the world's smallest/fastest portable drive with capacities from 3GB to 30GB.

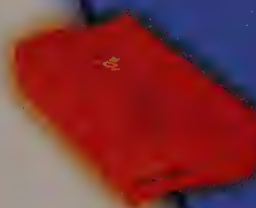


### FireWire/USB Hard Drive

Our combo drive includes FireWire & USB ports for maximum compatibility with capacities up to 30GB.

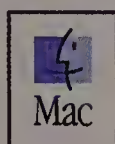


**Full Height FireWire Hard Drive**  
With sizes available up to 75GB, the Full Height FireWire Hard Drive is the ideal solution for those looking for high speed desktop storage.



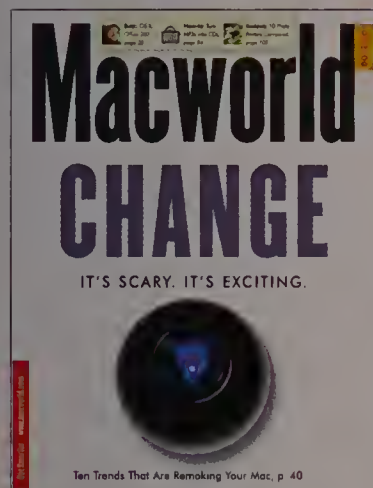
### UltraTek/66

An instant RAID solution for your G4 or G3. SoftRAID provides up to 66MB/sec data transfer with 60, 90 & 150GB of storage.





# Feedback



## Loose Change

For many years I've subscribed to *Macworld* and found your reviews to be informative and helpful in making purchasing decisions. But your current one-column reviews are mostly worthless, especially for expensive products.

You mentioned that some readers thought reading *Macworld* was like doing homework. I can't afford to waste hundreds of dollars on bad products; I need details and comparisons. In other words, I have to do the homework before I make a purchase, to learn all I can. It's too bad that *Macworld* will no longer be my tutor.

**Erin Doak**

Denver, Colorado

**A**s a longtime reader of *Macworld*, I think the recent redesign is great. I especially enjoyed the interviews with Roger Ebert, Thomas Dolby ("Change," September 2000), and Douglas Adams (*Buzz*, September 2000). I am a fan of all three and hope that you continue to include more real-life articles about famous Mac users describing how they use their Macs.

**Nate Benditzson**

Chicago, Illinois

## No End to Trend

**A**fter reading Thomas Dolby's thoughts ("Change," September 2000), I think the music industry is scared of losing control of the pipelines between artists and audiences, and that it's suing Napster to slow down this process.

With new Internet-based technology, middlemen can be eliminated and the prices consumers pay for music can be reduced. However, a fair solution for compensating artists for the use of their intellectual property is needed. Perhaps finding a way to degrade the sound quality of work that does not come from a properly authorized source will make music piracy go by the wayside.

*via the Internet*

## Riding on the Freeway

**Y**our review of Freeway 3.0 disappointed me (*Reviews*, September 2000). For Freeway's target audience—designers—your "cons," although correct, are weighted

with too much importance.

Even for those of us who are more technically inclined, Freeway gives access to just about any customization of HTML that a user may desire. We've found that we can always do what we need with the program—JavaScript, forms, File-Maker databases, and more—and the Freeway actions automate much of the process. I see the world as code, but I'd rather use Freeway for Web design than anything else.

**Joe Muscara**

Houston, Texas

*There is a significant difference between Freeway's ability to open a dialog box so you can add snippets of HTML or other code to a page, and other programs' ability to open a window and let you review and edit the underlying code for the whole page. Freeway is a good product for people who don't need full code access. People who do need that*  
*continues*

should be aware that Freeway isn't designed for them.—Tom Negrino

### Running a Tab

**Y**ou described "OS 9's tab menus" ("Change," September 2000), but I cannot find this feature on my computer. Is it a shareware tool or an OS 9 feature?

**Jason Connor**

Richmond, Washington

*Bruce Tognazzini was referring to the tabs you can get if you drag a folder window to the bottom of your screen. The tabbed window in the screen shot that accompanied Tognazzini's essay was James Thomson's shareware DragThing, available at [www.dragthing.com](http://www.dragthing.com).—Ed.*

### What Mac Is That?

**L**ooking carefully at all of Macworld's former covers ("Welcome," September 2000), I wondered what kind of Mac was featured on the September 1996 cover. I don't recall ever seeing it for sale.

**Jonathan Daley**

Medina, Ohio


*That was a Power Macintosh prototype, created by Macworld and Frogdesign, that existed only on paper.—Ed.*

Letters should be sent to *Letters, Macworld*, 301 Howard St., 16th Fl., San Francisco, CA 94105; via fax, 415/442-0766; or electronically, to [letters@macworld.com](mailto:letters@macworld.com). Include a return address and day-time phone number. Due to the high volume of mail received, we can't respond personally to each letter. We reserve the right to edit all letters. All published letters become the property of *Macworld*.

### C O R R E C T I O N S

The price for QuickTime Pro (Reviews, October 2000) is \$30.

Current versions of Hard Disk Toolkit (Reviews, September 2000) do support HFS+ volumes.

Our revised rating of the product is  **m**

## Feedbag

*Glub, glub, glub.* No, that's not the sound of the *Titanic* sinking—it's our *Feedback* editor's mailbox taking on water under the weight of all the mail we got about Macworld's redesign.

When you get thousands of letters, e-mail messages, and online forum posts, it's tough to distill the responses, but *Feedbag* is up to the challenge. "I don't want to be entertained," wrote reader Steve Katz, "at least not in the Jerry Springer sense of the word." Well, great. Now what do we do with our January cover story, "Two-timing PowerBook Users and the G4-owning Bikers Who Love Them"?

Reacting to a *Macworld.com* story about the U.S. Navy switching to Windows 2000 for its new shipboard computer systems, one wag noted, "Why do you think military intelligence is an oxymoron?" More troubling was a report from an Australian reader about his country's navy: "They're working on a highly expensive submarine project which has produced subs with the same level of stealth as Metallica." You mean the subs are calling press conferences and demanding the shutdown of Napster, too? Bummer.

But how do those of us not aboard U.S. Navy vessels make clear our undying love of the Mac? An anonymous reader suggests wearing graphite ribbons on every lapel, "to spotlight the plight of Mac users everywhere." Instead,

perhaps it's time to don a navy-blue ribbon—for all our sailors who go to sea with their lives in the hands of Bill Gates and a boatload of Windows support technicians.

Be glad, then, that you use a Mac—or at least that you use Mac OS 9. *Macworld* reader Jane reports that she "nearly lost it" when an Apple representative told her that Mac OS X will make the Mac experience more like "the way PC users are used to working." Ahoy, matey! Cap'n Jobs would like a few words with you down by the brig.

If we are truly destined to evolve into PC users, perhaps Apple will one day place a second mouse button underneath that opposable thumb. This would please a reader by the name of "Bababooney," who is so frustrated with Apple's insistence that two-button mice are confusing, he's ready to throw a barrel of Apple Pro Mice out of the nearest port-hole: "If Apple is really making Macs for people that stupid, why don't they include drool bibs?"

Maybe with version 2.0, Bababooney.

But let's get back to that redesign. Jonathan Foerster may have summarized reader sentiment best: "Keep this up, and I might start wallpapering my house with your magazine." So long as it's not the bathroom, we'll accept the compliment.





## Thank God everything's not powered by Voodoo5.

With the world's first hardware full scene anti aliasing and our proprietary T-buffer™ cinematic effects engine, the new Voodoo5™ is the most powerful 3D accelerator ever built for the Macintosh.

See for yourself @ [www.3dfx.com](http://www.3dfx.com).

HARDWARE FULL-SCENE ANTI-ALIASING\*  
SMOOTHES AND SHARPENS 3D GAMES  
AND APPLICATIONS YOU ALREADY OWN.

T-BUFFER™ CINEMATIC EFFECTS ENGINE.  
THE MOST REALISTIC 3D ENVIRONMENT  
ALLOWED BY LAW.

DVI SUPPORT FOR MACINTOSH  
FLAT PANEL USERS. DIGITAL  
EDGE-TO-EDGE CATHY.



Available for Macintosh and PC.

SO POWERFUL, IT'S KIND OF RIDICULOUS.

Circle 25 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

# Mean Green Machine

**T**he new colors are what catch the eye—the striking deep blue of indigo, the pulsating Day-Glo green of key lime. But the real significance of Apple's new line of iBooks is beneath the surface.

When it debuted in the summer of 1999, the iBook quickly got a reputation for being more dazzling than dutiful. The original iBook featured only 32MB of RAM, making that model prone to crashes.



## Something Old, Something New

	CPU	INSTALLED MEMORY/ MAXIMUM MEMORY	HARD DRIVE	GRAPHICS PROCESSOR	OPTICAL DRIVE	MODEM
July 1999 iBook	300MHz	32MB/160MB	3GB	ATI Rage Mobility controller	CD-ROM	56K built-in
February 2000 iBook	300MHz	64MB/320MB	6GB	ATI Rage Mobility controller	CD-ROM	56K built-in
February 2000 iBook SE	366MHZ	64MB/320MB	6GB	ATI Rage Mobility controller with 4MB of SDRAM	CD-ROM	56K built-in
September 2000 iBook	366MHZ	64MB/320MB	10GB	ATI Rage Mobility 128 controller with 8MB of SDRAM	CD-ROM	56K built-in
September 2000 iBook SE	466MHz	64MB/320MB	10GB	ATI Rage Mobility 128 controller with 8MB of SDRAM	DVD	56K built-in

News,  
Views, and  
Chatter from  
the World of  
Macs



Apple doubled the iBook's RAM this past spring. And the latest revisions continue to bolster the laptop's power (see "Something Old, Something New").

The standard iBook configuration now includes a 366MHz G3 processor, 64MB of RAM, and 10GB of storage. The iBook Special Edition is even faster, now with a 466MHz G3 processor.

Gamers have plenty to love about the new iBooks. Apple has replaced the ATI Rage Mobility graphics controller with a Rage 128 Mobility chip set—the same graphics processor that ships in PowerBooks.

Just as important, Apple has added a FireWire port, a composite video-out port, and iMovie 2 to the new iBooks. Find a DV camcorder that costs less than \$1,000, and you've got a sub-\$3,000 portable movie-making kit.

Not bad for a machine that just a while ago was getting by largely on looks.—PHILIP MICHAELS

## STORAGE Surprise

**Oh yeah.** That other hardware upgrade. Apple isn't making a big deal about it, but the company has also boosted the hard drive capacity of its PowerBooks.

The 400MHz G3 PowerBook has an expanded hard drive capacity of 10GB, up from 6GB. Storage on the 500MHz G3 model jumps to 20GB, from 12GB. And the laptops ship with iMovie 2 installed.

The storage upgrades haven't affected prices: the 400MHz PowerBook still sells for \$2,499, the 500MHz version for \$3,499.

Users who demand massive amounts of storage can plunk down an extra \$500 for Apple's build-to-order model, which boasts 30GB of hard drive capacity and an extra battery and AC adapter—for those times you and your PowerBook are circumnavigating the globe, apparently.

Plenty of differences remain between the two product lines. PowerBooks have extra USB and FireWire ports, as well as more L2 cache space. They have 14.1-inch TFT XGA displays, compared with 12.1-inch TFT SVGA displays on the iBooks. And the 500MHz PowerBook comes with twice the memory—128MB—of the top-of-the-line iBook.—PHILIP MICHAELS

### MAC STUFF

## The Whole Picture

You're back from the deep-sea fishing trip with digital-camera photos of you battling that 35-inch striped bass. But forcing everyone to crowd around your 17-inch monitor to see the pictures doesn't adequately convey the drama. Enter FotoShow from Iomega (800-697-8833, [www.iomega.com](http://www.iomega.com)). After plugging into your Mac via USB, FotoShow works as a Zip 250 drive. Just drag JPEGs off your desktop for easy storage. But FotoShow



KIRK AMYX

really shines when you can hook it up with a TV to display images in full-screen splendor. FotoShow lets you crop and rotate photos, build slide shows, and remove red-eye with its built-in PictureIQ software. The drive, which costs less than \$300, gets your point across—at business or at home—especially to friends who doubt your fish stories.—ANTON LINECKER

ETHERNET	USB	FIREWIRE	VIDEO OUT	DISPLAY SIZE	COLORS	PRICE
10/100BaseT	Yes	Na	Na	12.1 inches	Blueberry, tangerine	\$1,599
10/100BaseT	Yes	Na	Na	12.1 inches	Blueberry, tangerine	\$1,599
10/100BaseT	Yes	Na	Na	12.1 inches	Graphite	\$1,799
10/100BaseT	Yes	Yes	Yes	12.1 inches	Indiga, key lime	\$1,499
10/100BaseT	Yes	Yes	Yes	12.1 inches	Graphite, key lime	\$1,799



# Mac OS X Beta? Later

I've been using the OS X public beta for the past 48 hours—about 24 more than I needed to decide that I'd wait until the real OS X shipped.

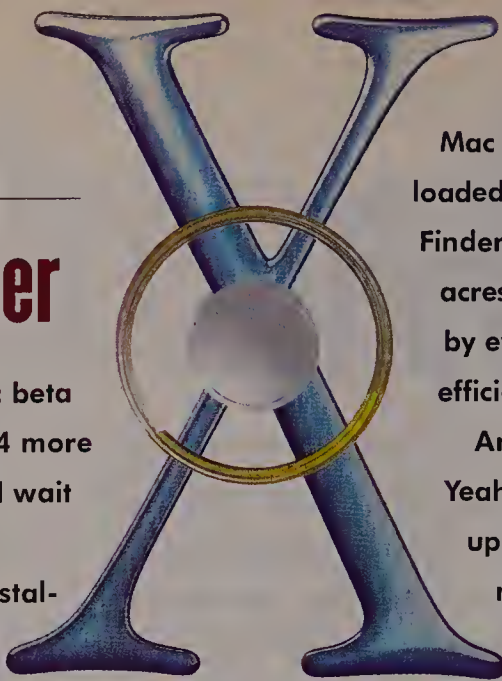
The first thing I did after installation was turn off Aqua's colors. Blue buttons don't really bother me, but I thought the reset might stop that annoying throbbing when they're highlighted. It didn't. I'm clinging to the hope that "Dethrobber" will be an option in the final release.

Then I tried to print a Microsoft Word document on my ink-jet printer. No can do. You see, Word is a Classic app. And my printer is a USB printer. There's no USB-printer support in the Classic environment.

This floors me. After two years of telling everyone to junk their old Macs, junk their serial peripherals, and jump on the USB bandwagon, Apple has the nerve to come out with an OS that doesn't support USB printers!

Since when does beta mean "basic functionality is missing, but we're going to ship it anyway because we told you we'd have it out in September and we wanted to make a big splash in Paris"?

Then there's networking. Remember Open Transport? It lets you change your network configuration on-the-fly, great for PowerBooks or for when your DSL line dies. It's not in the OS X beta. Every time you change your network setup, you have to restart. Another step backward.



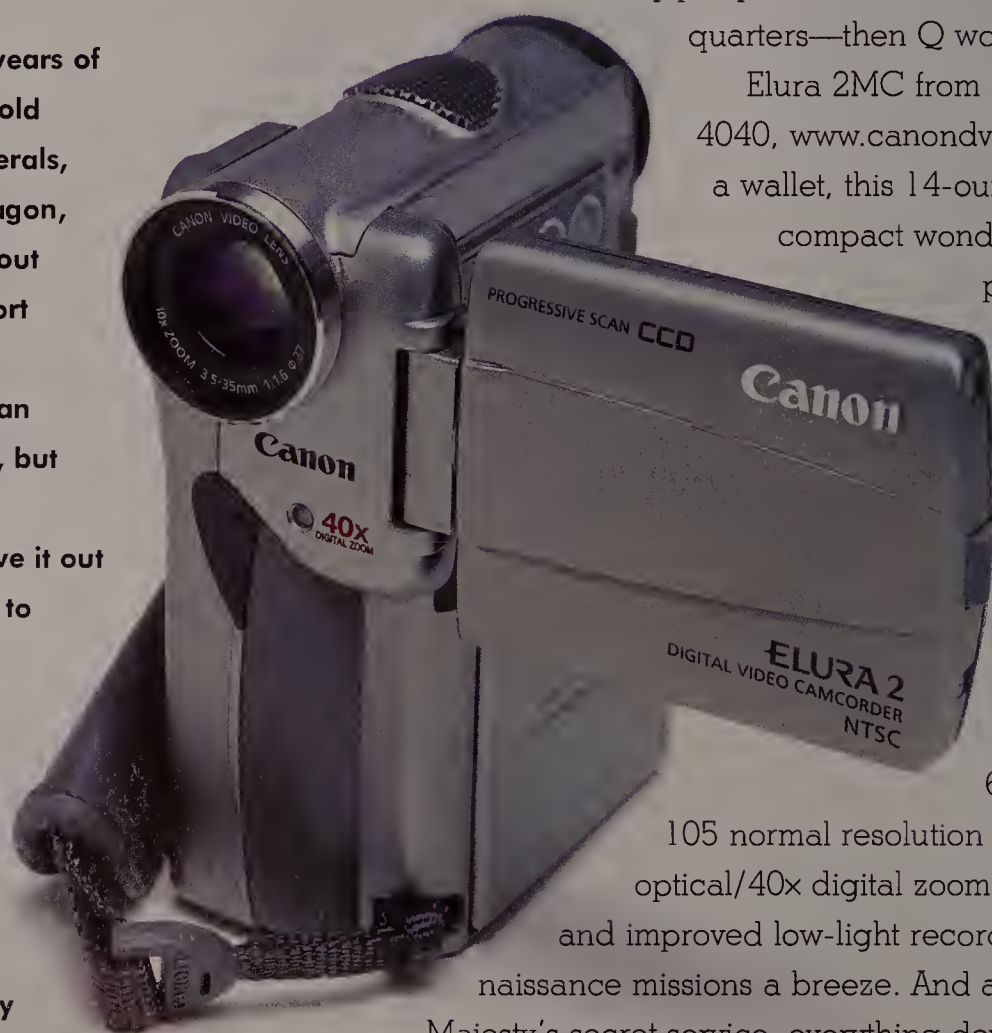
Finally, there's the Finder. Yo! Apple! Mac users like the old Finder. We like spring-loaded folders. We like being able to make Finder windows really skinny. We don't like acres of screen real estate being gobbled up by eye candy. The new Finder is vastly less efficient than its predecessor. Fix it.

Are there things I like about Mac OS X? Yeah. The font panel is cool. Two thumbs up on built-in support for two-button mice. And the force-quit feature is quite handy. As for the rest, I'll reserve judgment until a final version comes out.—HENRY BORTMAN

## COOL STUFF

# The Spy Camera Who Loved Me

If James Bond ever needed a video camera—say to tape a surprise birthday party for Blofeld at S.P.E.C.T.R.E. headquarters—then Q would hand him the Elura 2MC from Canon (800/828-4040, [www.canondv.com](http://www.canondv.com)). The size of a wallet, this 14-ounce MiniDV ultra-compact wonder fits in a tuxedo pocket. It has progressive scan recording for improved video quality. A Multi-MediaCard slot lets you store top-secret images. Each 8MB card holds 60 high-quality or 105 normal resolution pictures. The 10x optical/40x digital zoom, image stabilizer, and improved low-light recording make reconnaissance missions a breeze. And after a day on Her Majesty's secret service, everything downloads to a Mac via FireWire. The only thing that's not small is the Elura 2MC's price tag—\$1,799. So try to return the equipment this time, 007.—ANTON LINECKER





# Be a Web design superhero

*without having to wear your underwear  
on the outside of your pants.*

MACROMEDIA FLASH™ 5 software is the Web design solution your heroes use. You can create anything from basic animation, menus and navigation systems to the most amazing feats of Web design ever attempted. Design in a familiar and intuitive user interface and then unlock the power of ActionScript to create remarkable Web experiences. And by using Macromedia Flash™ with FreeHand® and Generator™, you'll accelerate your workflow. Design like a superhero, but never, ever, dress like one.

[macromedia.com/flash](http://macromedia.com/flash)

 macromedia® *what the web can be.™*



# Medicine For Your Mac



Nothing can ruin your day faster than a sick and ailing computer. And while Macintosh is one of the most reliable computers in the world, sometimes things can go wrong. That's why we invented TechTool Pro. TechTool Pro is the super-utility that can find and isolate almost any problem on your computer. No other utility in the world comes even close to covering as many aspects of your Macintosh as does TechTool Pro.

But diagnosing computer maladies is only half the battle. Besides repairing drives, recovering data and checking the health of your Macintosh components, TechTool Pro can now help protect you against virus problems and software conflicts. TechTool Pro can also keep your Mac running at its peak between problems. The program optimizes your disk drive to make your computer run faster and more efficiently. Our RAM panel even allows

you to see the inner configuration of your memory without needing to open the case.

Do all these features make TechTool Pro complicated to use? Not at all. The MultiTester feature allows you to give your computer a full checkup with one click of your mouse. TechTool Pro even creates graphic, easy-to-read and understand reports. Now you can know the state of your computer without having a degree in computer science.

Every day, more and more Macintosh professionals are choosing TechTool over other system utilities. In fact, even Apple Computer includes TechTool Deluxe with every copy of their AppleCare™ Protection Plan. Simply put, TechTool Pro 3 is the most complete and powerful troubleshooting and repair utility available for your computer. Why would you settle for anything less?



Micromat Inc.  
800-829-6227  
707-566-3831

FAX: 707-566-3871  
info@micromat.com  
www.micromat.com



# Package Different

Like a bubblegum movie's young thug who ditches his leather jacket for fancier duds so he can woo the prom queen, Microsoft wants to change its image with Mac users. That means new logos, new advertising material, and—in the case of Office 2001—new packaging. Instead of packaging the software suite in an oversize box, Microsoft put Office 2001 inside a rounded

plastic case. With its smoky gray color, the package (designed by Landor Associates) resembles a hollowed-out hockey puck (so *that's* where Apple unloaded those roly-poly mice). The idea, says Microsoft Mac Unit Product Manager Irving Kwong, is to provide "a case that is as stylish as the Macintosh. Not only does the new packaging present Office 2001 in a fun and unique man-

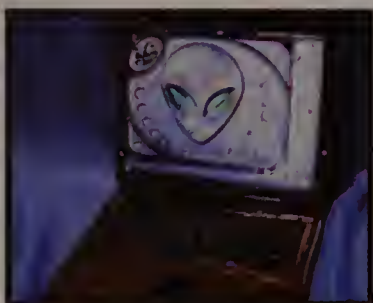
ner, but it is also reusable." True enough, the Office 2001 package can double as a home for your favorite CDs—and the

Microsoft label is removable, in case you're wary of shilling for The Man.—PHILIP MICHAELS



Buzz

www.Applefritter.com



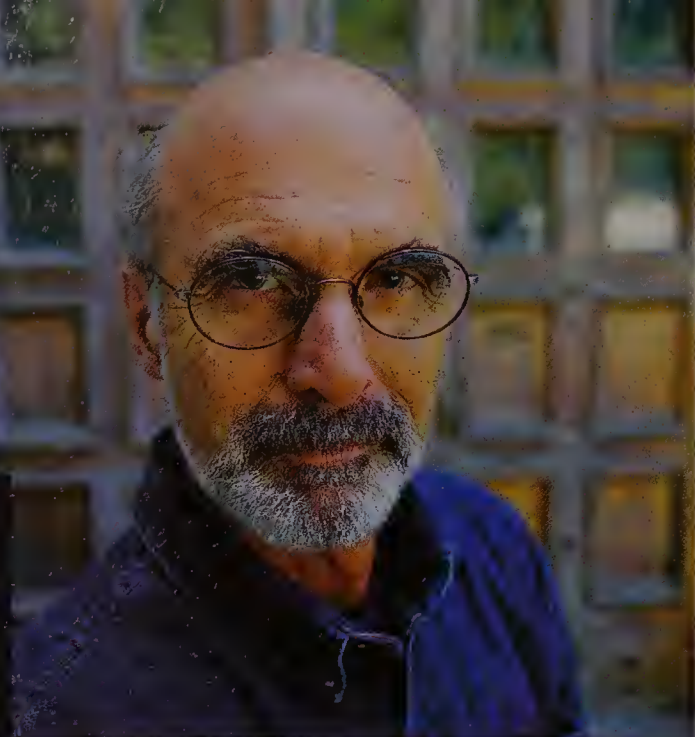
[CLICK HERE](#)

## Macking Out Your Mac

So you've been dying to house that old Power Mac 7600 in a vintage Zenith radio from the 1940s? Hey, who hasn't? Or maybe you took a look at the beat-up Mac SE sitting in the deeper recesses of your closet and thought, "If only I knew how to encase it in Mega Blocks." Join the club, pal. Applefritter.com can tell you how to build the customized Mac of your dreams. The site, a virtual museum for Mac aficionados, features classic, prototype, and limited-edition Macs, such as the Macintosh TV and the Power Express—a G3 machine with six PCI slots. But its main draws are the tricked-out custom builds that, should you try to duplicate them, will void your warranty faster than you can say, "Wozniak wept." Undaunted, Applefritter posts build notes and photographs for the brave of heart so that you, too, can have a G3 stuffed with Christmas tree lights. Even if you're not the fearless type, the site's still worth checking out for the Darth Maul PowerBook, which all the kids will want this holiday season.—MATHEW HONAN







EDWARD CALDWELL

## PRO FILE

# Documentary Discount

## Q&amp;A with Jon Else

*Jon Else became a documentary filmmaker to tell stories. But lately, the director of Cadillac Desert and The Day After Trinity: J. Robert Oppenheimer and the Atomic Bomb finds himself spending less time behind the camera. Else sent out 310 funding proposals before he had enough money to produce Cadillac Desert, a film about water in the American West. "More and more of us have found ourselves having to spend more and more time raising money," Else says. "It's a lousy waste of our time." Else hopes technology will set him free. He teaches documentary filmmaking at the University of California at Berkeley's Graduate School of Journalism. The focus: low-budget filmmaking. The tools: cameras and editing applications available to Mac users.—ANTON LINECKER*

**Q:** Is making a documentary now easier or harder than 20 years ago?

**A:** It was a lot easier to raise money 20 years ago, but mechanically it was more difficult. The fact of the matter is that Avid and Final Cut Pro editing is vastly more transparent and flexible than the old film-style editing. And let's not even talk about the nightmare of tape-to-

**"We see the technology as just a way of getting the door open."**

tape editing, the real dark continent of editing.

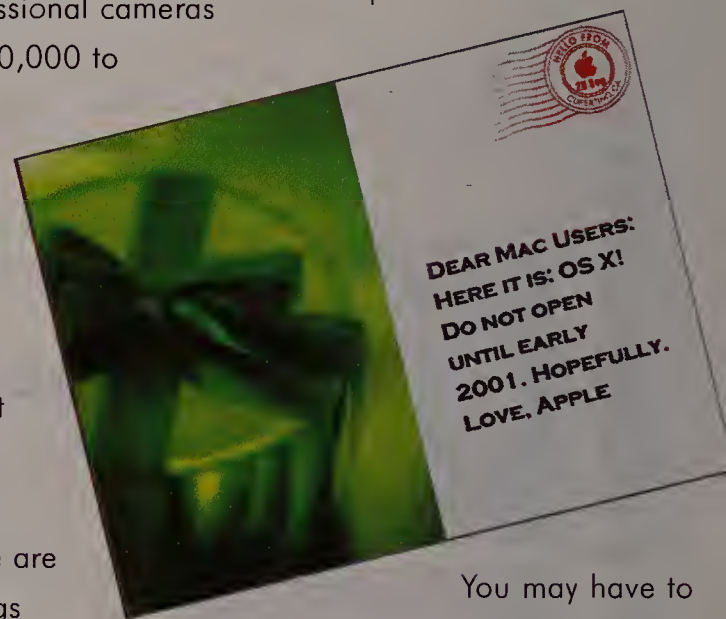
**Q:** How are new technologies affecting documentary filmmaking?

**A:** We see the technology as just a way of getting the door open to less-expensive ways to make some documentaries. It's not rocket science. Every year we get smaller cameras that take better pictures. We're approaching a point where even small-format video, when viewed on television, approaches the quality of 16mm or Super 16. These can be consumer cameras that sell for \$1,000 up to low-end professional cameras that go for \$10,000 to \$15,000. It

used to be an Avid system cost \$120,000. Now a complete Final Cut Pro system will run you about \$4,000. There are still some things that the Avid can do that Final Cut can't, but there's about 80 percent to 90 percent of an Avid's capabilities that Final Cut can.

**Q:** What is an essential equipment package for today's low-budget documentary producer?

**A:** The consumer cameras are starting to get so good, you can get anything pretty much for \$1,000 and up. In the program at Berkeley we use PD100s, PD150s, VX1000s—the Sony stuff—and also the Canon XL1, which has become a real workhorse, and the GL1, which is a little less expensive. Any of these consumer-prosumer cameras will make astonishing pictures. Then, you need a good external microphone.



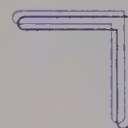
You may have to spend a thousand bucks for that. And finally, you need something to edit on. We're going to go with Final Cut Pro because we're working in a professional world.... So how much is that? Six grand for everything?

## More Info:

[www.macworld.com/2000/12/buzz/else.html](http://www.macworld.com/2000/12/buzz/else.html)

What else did Jon Else say about technology's effect on documentary filmmaking? Read the full interview at Macworld.com.





What inspires the pictures  
that inspire?



**OLYMPUS®**





“To me, photography is not just about documenting your subject. It’s about transforming it. If you can find something within you that connects with what you’re shooting, then you’ll be reflected in the pictures you make. That will also lead to a body of work that’s both consistent and unique.”

– David Maisel



**David Maisel** | used the Camedia E-100 Rapid Shot

Lens: 6.8mm (35mm equivalent) with 0.8x wide conversion lens for 5.4mm (28mm equivalent), AF mode – normal  
Exposure: ESP multi-patterned mode, shutter priority (1/650th) at 15 fps, aperture f5.6, ISO 100, auto white balance  
Light: natural dusk (no filtration), hard reflector for fill.

**OLYMPUS®**

digital

# Presenting the latest in a long series of inspirations.

## The digital E-100 Rapid Shot



The photo you've been trying to take your entire life may have always been buried between frames two and three. To help capture those hidden moments, Olympus created the Camedia E-100 Rapid Shot.

The E-100 Rapid Shot fires in blistering bursts at speeds up to 15 fps. Shutter speeds are as fast as 1/10,000th of a second. We've even developed a pre-capture mode, to make sure you never miss a shot. And it's all done through a 10x Olympus aspherical glass zoom lens (35-380mm equivalent) with image stabilization and a 2.7x digital telephoto (1080mm equivalent).

We encourage you to ask your Olympus reseller about everything this lightning-fast camera offers. It's our hope the E-100 Rapid Shot will help you see photographic opportunities you've never seen before.

<http://e-100rs.olympus.com>

This is the camera that will change the industry.

With the development of the Camedia E-10 SLR's 4.0 megapixel CCD, even the most advanced lens designs became suddenly outdated. That may sound hard to believe. Until you consider, that none were developed with the extra-critical tolerances in mind that such an advanced CCD requires.

As a result, our 14-element, fully multi-coated ED and aspherical glass 4x zoom lens was completely rethought to yield even finer focus and resolution. Combine it with shutter release lag times equal to traditional SLRs, full control and our exclusive TruePic™ technology, and you have a camera like no other.

Would you like pictures like no other? Ask your Olympus reseller all about the E-10 SLR. See what we've done with digital photography. Then go out and see what you can do with it.

<http://e-10.olympus.com>

## The digital E-10 SLR



## The P-400 photo printer

The finest digital images deserve to be the finest digital prints. The Olympus Camedia P-400 dye sublimation printer offers true photo-quality, continuous-tone prints and enlargements. All in just 90 seconds. Combined with our E-100 Rapid Shot or E-10 SLR, the P-400 gives you rich, stunning, professional-level prints and enlargements.

CAMEDIA

**OLYMPUS**  
Focus On Life

Call 1-888-55DIGITAL or visit [www.olympus.com/digital](http://www.olympus.com/digital) for more information. © 2000 Olympus America Inc.

TruePic is a trademark of Olympus America Inc. Specifications are subject to change without any notice or obligation on the part of the manufacturer.





# What's HOT

A QUICK LOOK AT THE WORLD OF TECH

**1. The latest iBook color: key lime.** We're holding out for the rhubarb, coconut cream, and lemon meringue iBooks, thank you.

**2. Apple goes to Paris to release the OS X beta.**

Launch marred when French protest lack of "Think Different" posters featuring Jerry Lewis.

**3. Intel recalls faulty 1.13GHz Pentium III chip.**

On the bright side, anyone adversely affected gets a free set of Firestone tires.

**4. Apple sues employee after information about developing products appears online.** Hope

Macworld's legal department still lets us report on Apple's new [REDACTED] that can [REDACTED], making your Mac completely [REDACTED].

**5. MP3.com faces \$250 million fine for copyright violations.** Company plans to raise the money by rebroadcasting baseball games without express written consent.

The graphics processor developer planned to release only a PCI version to the Mac market. But a version that uses the AGP expansion interface could be available by the time you read this.



## UPDATED

● **BEdit** by Bare Bones Software (781/687-0700, [www.barebones.com](http://www.barebones.com)): **BEdit 6.0** lets users edit multibyte text and offers Open Scripting Architecture support. The \$119 HTML- and text-editing application also supports HTML 4.01, XHTML 1.0, and WML 1.1. Current users can upgrade for \$39.

● **Media Cleaner** by Terran Interactive (800/577-3443, [www.terran.com](http://www.terran.com)): Now called **Cleaner 5**, the updated video-processing software can capture digital video directly from a DV camera, add interactive content, and encode content for use on the Web. The program sells for \$599, the upgrade for \$179.

● **FastTrack Schedule** by AEC Software (800/346-9413/[www.aecsoft.com](http://www.aecsoft.com)): With **FastTrack Schedule 7.0's** customization and automation options, users can track resources and display a project's status in weeks or months. The new version sells for \$299, and a \$99 upgrade is available.

—Compiled by PHILIP MICHAELS

## GRAPHIC DEVELOPMENTS

# COREL DRAWS UP MAC BATTLE PLAN

The Chinese use the same character for the word crisis as they do for opportunity. Corel has had enough of the former and would like more of the latter.

But Corel hopes to convince Mac users uneasy about its purchase of Painter, Bryce, KPT, and KPT Vector Effects that it means business. "We want to make sure people see us as a company with a reputation for strong Mac products," says Corel spokeswoman Meredith Dundas.

That's a tall order, given Corel's shaky Mac track record. But the company is trying to back up the talk. It released Bryce 4.1, adding new mapping modes. Painter 6.1 should be out by late fall.

"They prove to users we're strong, we're working with the Mac, you can trust us," Dundas says.

Mac users may not be as encouraged by Corel's decision to release CorelDraw 10 for the Mac in early 2001 while already shipping the Windows version. The company has its reasons—the next Mac will be OS X-savvy, so Corel can't release the product until a final version of the operating system is ready. But Mac enthusiasts take it personally when they have to wait for a product that Window users already have.

Corel also plans major revisions of each of its graphics programs—including the former MetaCreations products—for spring of 2001.

That certainly gives Corel the opportunity to redeem itself in the eyes of Mac users. Now all it has to do is deliver.—PHILIP MICHAELS

Buzz

## Product WATCH

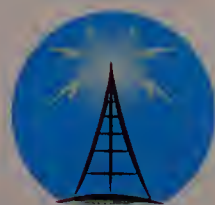


## RELEASED

● Build-to-order graphics card options from Apple (800/692-7753, [www.apple.com](http://www.apple.com)) and ATI (905/882-2600, [www.ati.com](http://www.ati.com)): Mac users who buy their Power Mac G4s and G4 Cubes through Apple's online store can have ATI's new Radeon graphics processor card installed for an extra \$100.

● New printers from leading Mac developers: Epson (800/873-7766, [www.epson.com](http://www.epson.com)) is rolling out three four-color USB printers—the \$99 **Stylus Color 777**, the \$149 **Stylus Color 880**, and the \$249 **Stylus Color 980**. IBM (888/746-

7426, [www.ibm.com](http://www.ibm.com)) released the \$399 **Infoprint 12**, a 25-pound USB laser printer. Hewlett-Packard (800/552-8500, [www.hp.com](http://www.hp.com)) is now shipping the \$399 **DeskJet 990C**, the \$399 **PhotoSmart 1215**, and the \$499 **PhotoSmart 1218**. All three printers include 1,200-by-2,400-pixel dpi mode, and the PhotoSmart models have built-in Flash and SmartMedia card slots.

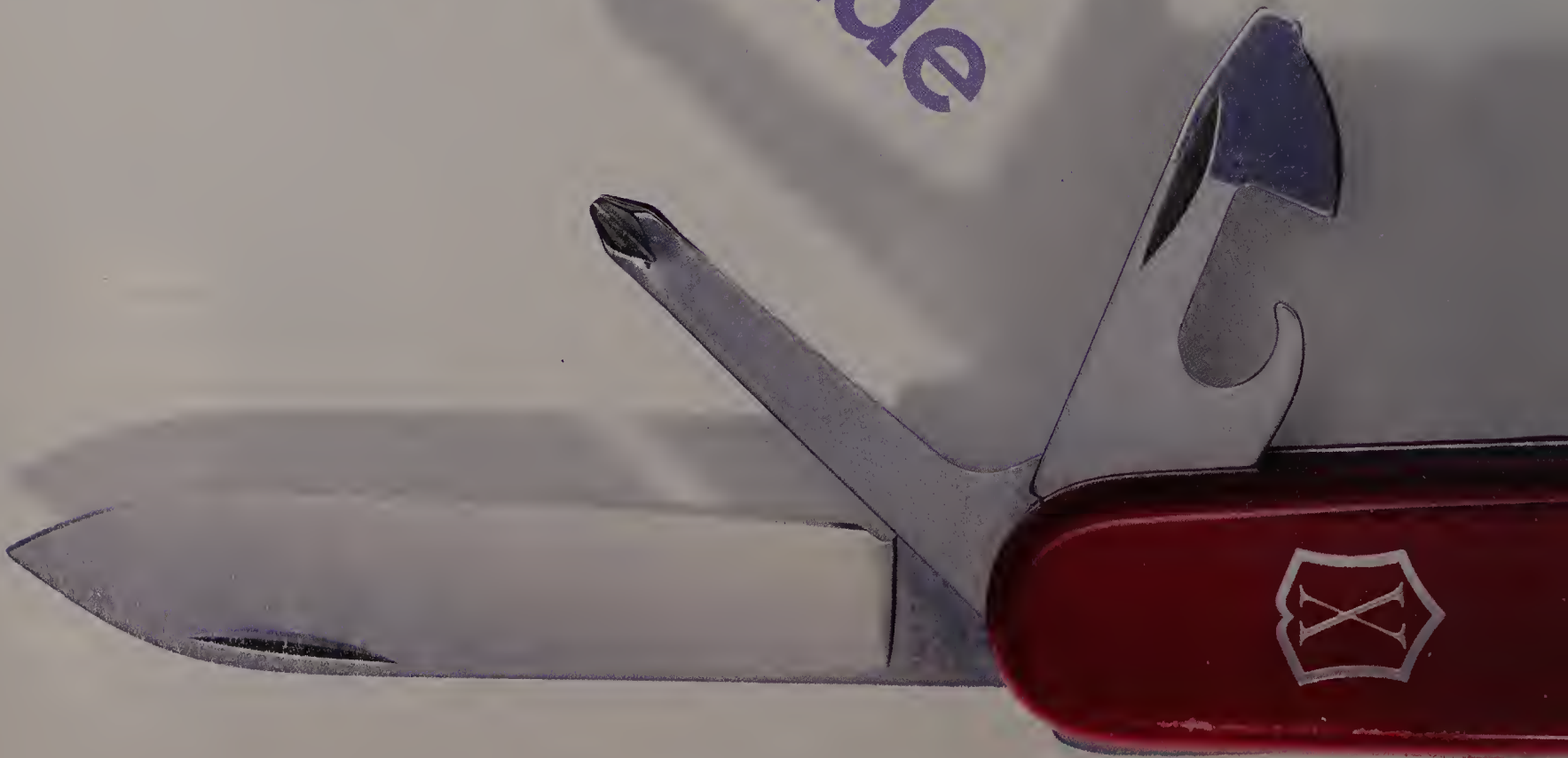


## ANNOUNCED

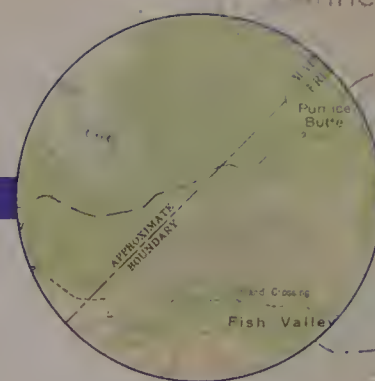
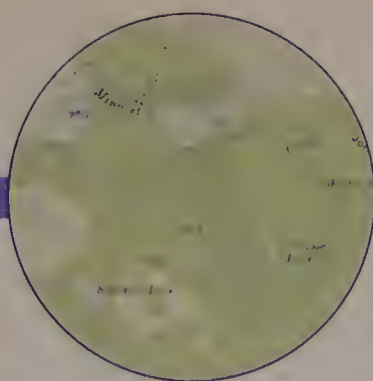
● An AGP version of the **Voodoo5 5500** graphics card from 3dfx Interactive (888/367-3339, [www.3dfx.com](http://www.3dfx.com)):

# Survival OS X Beta Guide

Explore the Future Safely  
with These Tips for Installing and  
Using the New Mac OS







**F**or years, Mac fans have petitioned Apple for a modern operating system: not just more spaghetti code piled on top of the ancient Mac OS foundation, but something state-of-the-art and rock solid. We've wanted the stability of Unix *and* the good looks of a Macintosh.

Be careful what you wish for. Apple's new operating system, Mac OS X, is all that. But OS X is unlike any other operating system in Macintosh history, and in its current condition, it requires a great deal of tolerance from the Mac faithful. Although Apple won't release it in final form until spring of 2001, it's

now available as a *beta* (the final stage of development before a product's release) for you to try.

Running a prerelease OS is like rafting down an uncharted river or hiking through the back country—there's no telling what danger lurks around the next bend. Running the OS X beta has its upsides, however—including a sneak peek at an operating system that will soon radically reshape your Mac experience.

If you're just catching on to this phenomenon, see "Mac OS X Unveiled!" (March 2000) and "X Arrives" (*Buzz*, November 2000) for overviews of the OS. If you're itching to get your hands on the real thing, you can order the \$29.95 Mac OS X-beta CD-ROM from <http://store.apple.com>. But read this two-part article before the package arrives. We'll show you how to prepare for and install the beta, minimize risks, and navigate the unfamiliar territory.



9988

1120

**by Franklin N. Tessler**

From the Roman numeral in its name to its Aqua interface, Mac OS X requires you to think very different. But thinking different doesn't mean throwing caution to the winds. For the best beta experience, you'll need to prep your Mac with certain hardware and software, install the beta in the proper way and place, and understand the new configuration options.

## Check Your Supplies

Apple is taking a huge gamble by releasing OS X to the public before it's done. If the beta is a bug-ridden turkey, Apple could lose the consumer confidence it has recaptured since Steve Jobs's return to the helm. So it's a safe bet that Apple's software engineers have been working overtime to make the OS X beta as stable and reliable as possible.

But before you reach for your credit card, make sure your hardware is up to the job. The OS X beta won't run on all Macs, and it has hefty system requirements. (See "The Right Stuff" for a hardware checklist.) Once you've met those criteria, you should take the following simple steps to forestall problems.

**Don't Install the Beta on a Mac You Can't Live Without** Even if you have backups of your applications and data, reformatting and restoring a hard drive can take hours. It's also important to remember that many peripheral devices—including USB printers and removable media drives—won't work under OS X until vendors release new drivers for them.

**Back Up Your Hard Drive before You Install the Beta** And do it again frequently thereafter. Don't assume that

your existing backups are intact—test them to make sure that files weren't corrupted during backup. If you have Dantz Retrospect (925/253-3000, [www.dantz.com](http://www.dantz.com)), you can use that program's Verify function to check the integrity of your backups. (See "Be Safe, Not Sorry," February 1999, for backup strategies.)

**Install Mac OS 9** If you want to use your current applications in OS X's Classic environment, you must have OS 9 installed. Classic is incompatible with previous versions of Mac OS.

**Protect Your Files** Although you can install the OS X beta on the same hard drive as Mac OS 9, shielding your files by installing the beta on its own hard drive helps ensure their safety (though the beta can't boot from an external FireWire drive). If your computer goes south, you'll be less likely to lose valuable data. (If

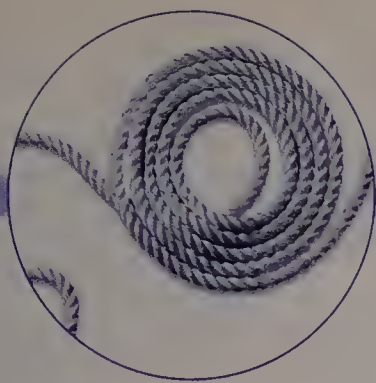
Back up your hard drive before you install the OS X beta—and frequently thereafter.

you have a G3 or G4 Power Mac with two ATA drives, you have to install the beta on the *master* drive.)

**Partition Your Drive** If you don't have a second drive, use Apple's

# Install with Care





Drive Setup feature to create a separate partition for OS X on your disk. Note that Drive Setup can't partition a drive without reformatting it first.

## Map Your Route

You've backed up and prepared your hard drive, and you're holding the beta CD in your hand. It's time to install.

**Start with C** Insert the CD and restart while holding down the C key. Your Mac will restart from the CD, and the installer will run automatically. (The spinning, colored CD cursor indicates that OS X is loading.)

**Pick a Drive** When the installer prompts you, choose a destination hard drive or volume for OS X. You'll have the option of reformatting the OS X disk in the Mac OS Extended (HFS+) or the Unix File System (UFS) format. Although the beta works with either one, only Mac OS Extended drives show up on a Mac OS 9 desktop, so that's the best option for most users. (If you're installing OS X on the same volume as OS 9, don't reformat; if you do, you'll have to restore all your current files and folders.) When the installation finishes, the installer restarts your Mac.

## Step on the Trail

The first thing you'll notice after Mac OS X starts is the revamped Setup Assistant. Although it resembles its Mac OS 9 counterpart, the OS X version lets you configure more settings.

It offers mostly straightforward options but adds a few new wrinkles.

**Configure Your Network** With OS X's Setup Assistant you can configure your Mac for Internet access via modem, local area network, cable modem, or DSL (Digital Subscriber Line). It's a good idea to open your Mac OS 9 TCP/IP control panel and write down your settings before rebooting into Mac OS X, so you'll have them handy when you get to this screen.

**Set Up E-mail** The Configure Email Settings dialog box lets you enter account information for the Mac OS X beta's e-mail client.

**Define User Accounts** Unlike OS 9's optional Multiple Users feature, Mac OS X's requires that you specify at least one password-protected user

account. If you don't want to type your user name and password every time you start OS X, you can specify a default account using the Login panel under System Preferences (see "Making OS X More Familiar," *How-to*, elsewhere in this issue).

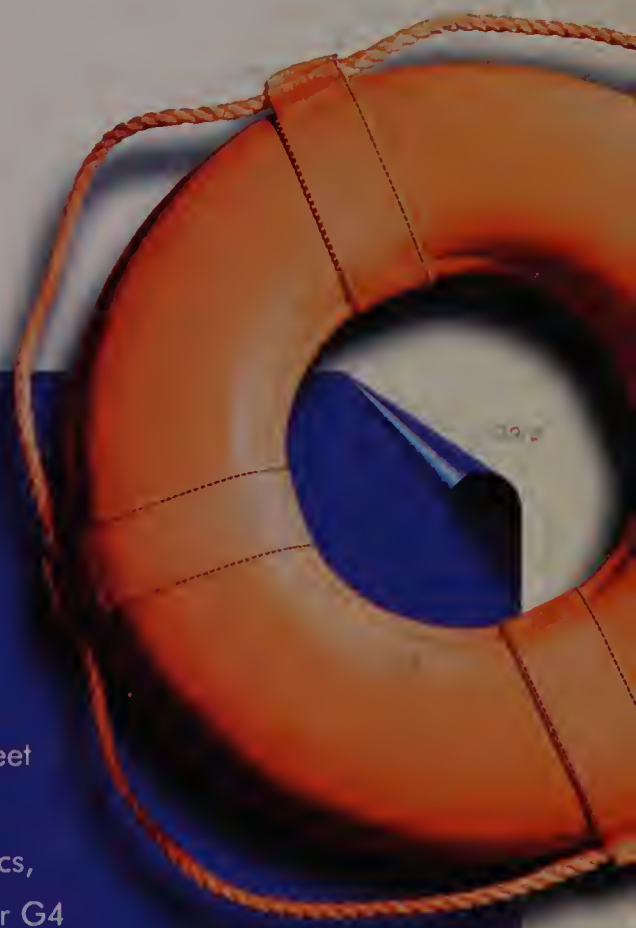
Setup Assistant applies your settings. Once you restart, you're ready to begin exploring the OS X beta.

*continues*

### The Right Stuff

**Here's what you'll need** to run the Mac OS X beta:

- An iMac, or any Power Mac or PowerBook with a G3 or G4 processor, except the original PowerBook G3 (the limited-release model that came before the Wall Street models). Apple hasn't committed to supporting other PowerPC-based Macs, including those with third-party G3 or G4 processor cards.
- Internal video or an Apple-supplied video card from IXMicro or ATI. If you have more than one monitor connected to your Mac, disconnect the second one before you install the beta.
- At least 128MB of memory. (You might get by with less, but you probably won't be able to run your current OS 9 applications.)
- 1.5GB of free disk space. If you can spare the room, setting aside another gigabyte or two for applications and documents is a good idea.
- Firmware updates for your Mac and other hardware. Some people report they can't run the beta without those updates. Look for the latest installers and instructions on Apple's support site ([www.apple.com/support](http://www.apple.com/support)). Updates may cause their own problems, so give yourself time to recover before you go to the next step in the installation process.







by David Pogue

Once you've installed the beta, it's time to take your first steps into the future of the Mac. Just make sure you walk in with your eyes open.

The Mac OS X beta is visually stunning, powerful, and stable in situations that would have crashed previous operating systems. But it also lacks a long list of beloved Mac OS features, including the Apple menu, the Application menu, the Control Strip, pop-up windows, the Encrypt command, the Put Away command, Launcher, and several useful control panels. Even Windows' desktop is closer to the traditional Mac OS desktop than Mac OS X's.

The cheat sheet "Where'd Everybody Go?" will help you find the missing elements (or their replacements) as you navigate through the beta. For a more in-depth guide to its geography, including the folder structure, the Finder, Classic, and brand-new applications, read on.

## Get Out Your Compass

The most disorienting aspect of the Mac OS X beta is its folder structure. What lies behind Mac OS X's pretty face is Unix, plain and simple. Your Mac's default name is "localhost," and the System folder contains folders

called Administration, Applications, Documentation, and Library. Poke around, and you'll find files with names such as BSD.pkg and apache.conf.bak.

**New Survival Tools** For the time being, don't knock yourself out trying to decipher the functions of these files and folders. Instead, get acquainted with the new Go menu or the Finder tool bar (see "The Big Picture"), both of which give you direct access to the folders you

Behind OS X's  
pretty face is Unix,  
plain and simple.

really care about: Applications, where you'll find most of your Mac OS X programs, and Documents, where Mac OS X programs deposit your work (unless you direct them to a different folder via the Save command). Both of these folders are buried deep in the nested mass of Unix folders, but you can summon them easily from the Go menu. To preserve your sanity, consider putting aliases of your Mac OS 9 applications into this Applications folder, too, so you won't have to go foraging every time you need one of your older programs.

*continues*

Explore with Care





## **Our family has expanded!**

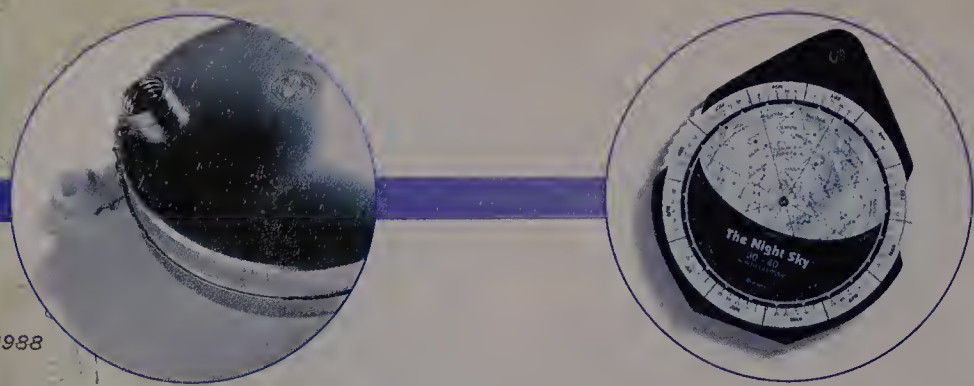
**We just added three innovative ways to upgrade your Macintosh; even more are on the way! Try our Tempo™ Ultra ATA66 PCI host adapter card, our new Tempo RAID 66 controller card and our Tango FireWire®/USB combo card. Coming soon — the Crescendo G3/7200 processor upgrade! Depend on Sonnet for simply fast Macintosh® enhancement products. To learn more, call 1-800-786-6260 or visit our website at:**

**[www.sonnettech.com/mwus](http://www.sonnettech.com/mwus)**



**SONNET**  
*SIMPLY FAST*





ity and features as Cocoa or Carbonized programs; if a Classic program crashes, your entire Mac OS 9 bubble may burst. But even then, you don't have to restart the machine; Mac OS X soldiers on.

**Take a Long Launch** To enter the Mac OS 9 world, just double-click on the icon of one of your older programs. Unfortunately, launching a Classic application takes just as long as booting up a Mac OS 9 machine—because that is, in effect, what you're doing. But you'll probably have to wait only once a day; after you've created the Mac OS 9 world, you can leave it running.

## Window Confusion

The first thing you'll notice is that Finder windows don't work quite like they used to. For example, double-clicking on a folder or disk doesn't open a new window. Instead, you'll see one big window at all times. Every time you

double-click on a disk or folder, its contents will replace whatever was previously visible in the window. Click on the Back button just below the title bar (or press ⌘-B) to return

to the previous view. In other words, the Mac OS X Finder works like a Web browser for your hard drive. Unlike a browser, though, it has no Forward button.

If you need to open two windows at once (to move or copy icons, for example), you have several options. You can use the File menu's New Finder Window command to create a second window, option-double-click a disk or folder to open it in an independent window, or choose the Column View option (see "Column View"). To learn how to make every double-click produce a new window, see "Making OS X More Familiar," *How-to*, elsewhere in this issue.

## Back to Mac OS 9

You get the best Mac OS X experience by using programs written for Mac OS X (termed Cocoa) or adapted to it (called Carbonized). Only these programs offer features such as the Aqua interface and memory protection, which ensures that if one application crashes or freezes, the rest of the Mac zooms merrily along.

**Run 9 in X** You don't have to buy entirely new programs, however. Apple's Classic application lets you run OS 9-compatible programs in their own memory bubble within OS X. Classic programs don't offer the same stabil-

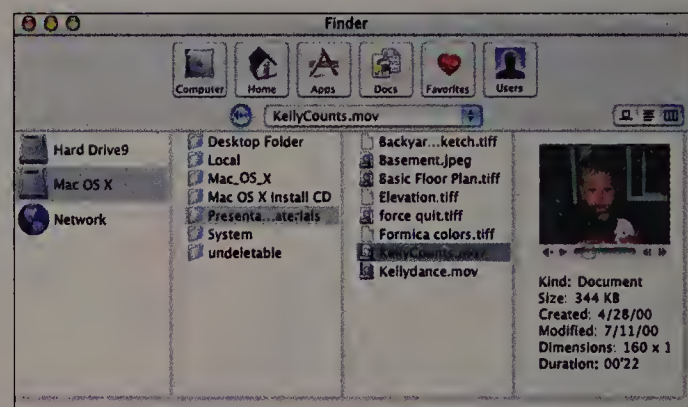
If a Classic program crashes, your entire Mac OS 9 bubble may burst.

At that point, using the Classic environment to run OS 9-compatible programs isn't bad. For the most part, programs launch and work as they always have: mostly at full speed and



### The Big Picture

In the Mac OS X world, the Apple logo is no longer a menu—it's a mere decal (which disappears in programs that have a lot of menus). The upper left menu identifies the current program and always contains the program's Preferences and Quit commands. The upper right corner shows disks that you've inserted or mounted via a network, your built-in hard drive doesn't appear there unless you make an alias of it.



**Column View** The new Column View speeds up folder navigation, makes it easier to see where you are in the folder hierarchy, and cuts down on the time you spend opening and closing folders. It even displays movies and pictures right in the Finder.



largely unaffected by your Mac OS X programs in the background. You will have to make some adjustments: Mac OS 9 programs communicate with your Mac circuitry *via* Mac OS X, so you'll have to do without your AirPort card and USB printer (see "Mac OS Lab Notebook," [www.macworld.com/2000/09/13/lab.html](http://www.macworld.com/2000/09/13/lab.html) for more information. Mundane tasks such as scrolling in graphic-heavy documents can be slow and jerky. Otherwise, Apple's clever engineering lets us have our OS cake and older software too.

## Grab Bag of Apps

As OS X makes its way onto the world's Macs, the biggest disappointment for users will be the lack of OS X-ready programs. But Apple soothes the ache by including some free applications with a standard OS X installation. Many OS X-compatible versions of the old standbys are there (Microsoft Internet Explorer 5, Calculator, QuickTime Player, Key Caps, Sherlock, and Stickies, for example). The Mac OS X beta also comes with a chess game; a basic HTML editor; a couple of simple graphics programs; and utilities for capturing screen images, "pinging" your network, monitoring your laptop battery, and more.

**Incomplete Survival Tools** The meatiest new programs include Address Book (a system-wide contact manager), Music Player (see "Music in X"), and Mail. But they're limited by an ivory-tower design attitude. For example, while Address Book is smoothly integrated with the Mail program, you can't import or export names and addresses. Music Player lacks some features of AppleCD Audio Player; the program can't import CD titles and track names, nor can it use the *continues*

## Where'd Everybody Go?

For a Mac user, using Mac OS X is like coming home from a trip to discover that your spouse has completely redecorated your house. Here are some hints on where to find the features you once knew. Apple has moved or replaced some; the company may yet restore those that are missing.

MAC OS 9 FEATURE	WHERE IT IS IN THE MAC OS X BETA
About This Computer	Missing. To find out your system software version, choose About This Mac from the Desktop menu. For memory stats on running programs, go to Process Viewer (Applications: Utilities).
Appearance control panel	Missing. To apply a picture to your desktop, choose Desktop & Dock Preferences from the Desktop menu and then click on the Desktop tab.
Apple DVD Player	Missing.
Apple menu	Missing. The Dock has some items that were once in the Apple menu, and dragging items into the Dock is like adding items to the Apple menu.
AppleCD Audio Player	Replaced by Music Player.
Balloon help	Eliminated.
Chooser for desktop printers	Now called Print Center (Applications: Utilities).
⌘-shift-3 (to take screenshots)	Replaced. Open the Grab application (Applications: Utilities), go to the File menu, and choose to make your screenshot a Selection (⌘-shift-A), a Window (⌘-shift-W), a Screen (⌘-Z), or a Timed Screen (⌘-shift-Z).
Collapse box	Eliminated.
⌘-drag (to scroll windows)	Replaced by option-drag.
Control panels	Found by clicking on System Preferences in the Dock (some control panels are absent from the beta).
Desktop clippings	Missing. You can still create desktop clippings in the Classic environment, but OS X programs can't accept them.
Disk First Aid	Now called Disk Utility (Applications: Utilities).
Disk icons	Removables such as CDs and Zip disks can show up on the desktop. To learn how to put a hard drive alias on the desktop, see "Making OS X More Familiar," How-to, elsewhere in this issue.
Draggable window edges	You can drag from the top edge but not the sides.
Drive Setup	Incorporated into the Mac OS X Installer.
Encrypt command	Missing.
Extensions	Eliminated.
File Sharing	In the Sharing window (click on System Preferences in the Dock).
Fonts folder	Now found in the Library folder (System: Library), but you can no longer double-click on a font file to see what the font looks like.
Get Info	Now called Show Inspector (under the File menu).
Graphic Calculator	Missing.
Key Caps, Calculator	Now in the Applications folder.
Keychain Access control panel	Now in the Utilities folder.
Multiple Users control panel	Now in the Utilities folder.
Pop-up windows	Eliminated.
Preferences folder	Nonexistent as we know it.
Restart command	Hidden unless you press the option key before opening the Special menu.
Quit command	Now in the Applications folder.
Scrapbook, Note Pad	Missing.
Script Editor	Now in the Utilities folder.
Sherlock	Now on the Dock.
Sorting triangle	Double-click on the column heading (such as Name) to sort a list view.
Shutdown Items	Missing.
Simple Finder	Eliminated.
SimpleSound	Missing.
SimpleText	Now called TextEdit, located in the Applications folder.
Startup Items	Click on System Preferences (on the Dock), click on Login, and then click on Add under the Login Items tab.
Stickies	In the Applications folder.
TCP/IP, AppleTalk	Click on System Preferences (on the Dock), and then click on Network. Note that the AppleTalk default is inactive.
Web Sharing control panel	Click on System Preferences and then on Sharing. Turn on FTP access for each item you want to share; then enable it using Show Inspector.
Zoom box	Now the green dot in the upper left corner of a window.



.com



.tv

A .tv web address tells the world you're part of the new generation of richer, more engaging online experiences. Visit [www.tv](http://www.tv) and register your .tv domain name today.

**dotTV**  
[www.tv](http://www.tv)  
This is your domain.



If you're planning to install the Mac OS X beta for day-to-day use, expect a dose of disorientation. You're installing the beta because you can't wait to live in the Aquafied world of Mac OS X, right? It ain't gonna happen. In fact, you'll probably spend most of your time in the Classic environment, which looks and behaves pretty much like Mac OS 9—though everything runs slower in Classic than it does in true OS 9. (See the results of Macworld Lab's tests at [www.macworld.com/2000/09/13/lab.html](http://www.macworld.com/2000/09/13/lab.html).) And a lot of things don't work.

At best, you'll get bounced back and forth a lot between Mac OS X proper and Classic, because few popular apps will be Carbonized—rewritten to take advantage of OS X—until well into the beta period. See [www.versiontracker.com](http://www.versiontracker.com) for a constantly updated list of Carbonized apps.

In the meantime, here are a few pointers to help you survive the ride.

**Networking** No matter how you configure your network settings in Mac OS 9, Mac OS X will override them with its own settings when Classic starts up. Mac OS 9's networking software, Open Transport, is disabled by OS X. Location Manager may appear to be active in the Classic environment, but it doesn't work. Likewise, you can't use OS 9's Remote Access control panel to make a dial-up connection to the Internet. You have to use OS X's PPP Connect application. And AirPort isn't supported in OS X beta, period.

**Fonts** Mac OS X and the Classic environment don't share a common set of fonts. Your Classic apps will have access to all the fonts you had installed in Mac OS 9, but your Mac OS X apps won't, unless you also install them in the OS X Fonts folder (System: Library: Fonts).

**Extensions and Control Panels** They're not accessible in Mac OS X, and they don't all work when you run Classic apps. Before starting up Classic for the first time, you'll probably want to turn off all third-party extensions and control panels, leaving active only those that were installed on your computer as part of Mac OS 9. Once you get Classic working properly this way, you can start adding back your favorite extensions, checking each one to see if it behaves itself in the Classic world.

**Peripherals** Printers, scanners, mice, and other peripheral devices communicate with your computer through bits of software known as drivers. Well, guess what? Mac OS 9 drivers don't work under Mac OS X, so peripherals need all-new drivers for OS X. Many of these aren't ready. Apple provides some generic drivers for devices such as laser printers, mice, and keyboards, but you'll probably have to wait awhile to use all of the features of all of your peripherals with OS X. Most notably, the Mac OS X beta won't let you print to USB printers from Classic applications.

Don't be disheartened. The OS 9-to-OS X transition is going to be a bit rocky. As long as you're prepared for a bit of bizarre behavior, you'll do fine.—HENRY BORTMAN



shareware NetCD Player to fetch them for you.

The Mail program is a slightly better bet. Thanks to OS X's refined text-smoothing technology, your messages look as though they've been typeset by somebody with a lot of class (even when the contents come from spammers with lousy spelling). The program offers multiple mailboxes, HTML formatting, and in-window viewing of picture attachments. But there's no mail filtering, and once again, Mail can't import anything (such as messages) from other e-mail programs.

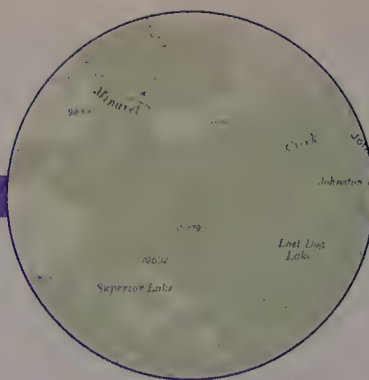
In short, Mac OS X's bundled programs seem to be interim software, designed to help you hobble through some semblance of a daily Mac work routine while the world awaits the arrival of Mac OS X—savvy third-party software.

*continues*



**Music in X** Apple has finally made a pocket-size gadget—too bad it's only on the screen. The new Music Player program lets you build playlists of MP3 files or audio CDs. Once you've set up your playlist, you can hide the track list.





## Is the Timing Right for You?

Throughout your Mac OS X-beta experience, remember that you're working with a prototype, complete with a sobering list of half-finished features. For example, you have to restart the computer after every change to your networking settings; as noted earlier, you can't use your AirPort card; and the Classic environment somehow manages to forget all your preference settings (such as your Conflict Catcher serial number). Apple intends to fix all of these problems in the true Mac OS X, which it promises to release before July 2001. It also hopes to reduce the RAM requirement to 64MB.

Other feature chasms, however, cannot be spanned by Apple alone. For example, thousands of people won't seriously consider buying Mac OS X until Microsoft commits to releasing a Mac OS X version of Microsoft Office. Then there's the matter of device drivers: the software you need to operate your ink-jet printer, non-Apple mouse, handhelds, and other add-on gadgets simply isn't available yet. We don't know when—or if—manufacturers will write updated driver software. Until they do, you'll have to do without those devices.

**The Last Word** If you can survive the bugs and glitches that come with any beta-test experience, you may start seeing the Mac OS X beta's potential. For example, Mac OS X laptops wake from sleep almost instantly. And although the operating system's underlying Unix engine may strike fear into the hearts of novices, intermediate and expert Mac fans may rejoice at its power. Using a few two-letter commands, you can use the included Terminal program to perform powerful, instantaneous operations, such as renaming, moving, or deleting huge numbers of files at once.

The Mac OS X-beta experience is outward bound, indeed. We have a lot to get used to—not only a radical new operating system, but also a radical new Apple. (When is the last time Apple invited feedback on an upcoming product, let alone told us about one?) Now that we've actually seen Mac OS X in action, some

of the early design criticisms have grown fainter—because in several important areas, Mac OS X's different ways of doing things are decidedly better ways.

One unanswered question is whether software companies will validate Mac OS X by releasing compatible products. The beauty and power

## The Mac OS X-beta experience is outward bound, indeed.

of Mac OS X is pointless if we spend all day in the Mac OS 9-emulation mode. It will take a group effort to make this trek into the unknown a successful journey. **m**

Contributing Editor FRANKLIN N. TESSLER wrote "Install with Care." He has installed every version of the Mac operating system—even the buggy ones—since 1984. Contributing Editor DAVID POGUE ([www.davidpogue.com](http://www.davidpogue.com)) wrote "Explore with Care." He is the author of the upcoming Mac OS X: *The Missing Manual* (Pogue Press, 2000/2001).

### More Info:

[www.macworld.com/subject/macosex/](http://www.macworld.com/subject/macosex/)

Brush up on your OS X history, get the latest news, and discuss the new operating system with other Mac users.

LINK



I'd heard a lot of buzz about ATI's new RADEON™ MAC EDITION, it's stunning 3D acceleration, 32MB DDR graphics memory and flexible display support. I wondered, would this graphics accelerator really make designing, easier and faster? Wow! it didn't take long to find out. RADEON™ MAC EDITION, rendered the most complex 3D elements faster than I'd ever seen, even when working in 32-bit true color! My projects literally sprang to life with incredible detail and realism. But RADEON™ MAC EDITION isn't all work and no play. The 3D gaming — on my lunch break of course, is just as incredible with noticeably faster frame rates. With the fastest rendering speeds available, animations are fluid and life-like. Plus, I can hook up to a TV for a big-screen experience. 3D rendering performance, awesome gaming and display flexibility make RADEON™ MAC EDITION one wicked card! BRING IT ON...



Copyright 2000 ATI TECHNOLOGIES INC. All rights reserved. ATI and RADEON are trademarks and/or registered trademarks of ATI Technologies Inc. All other company and/or product names are trademarks and/or registered trademarks of their respective owners.

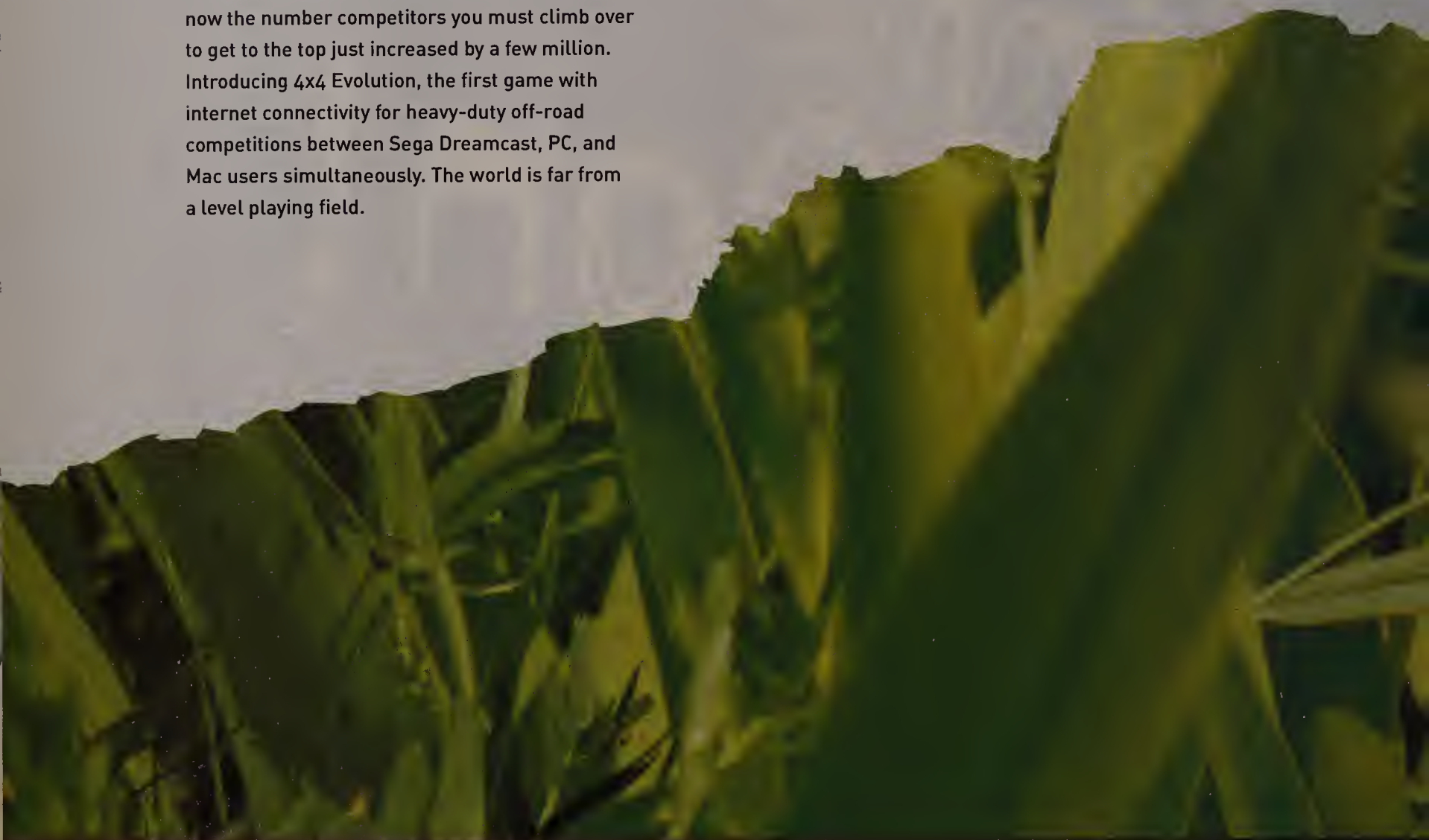


Visit [ati.com](http://ati.com)

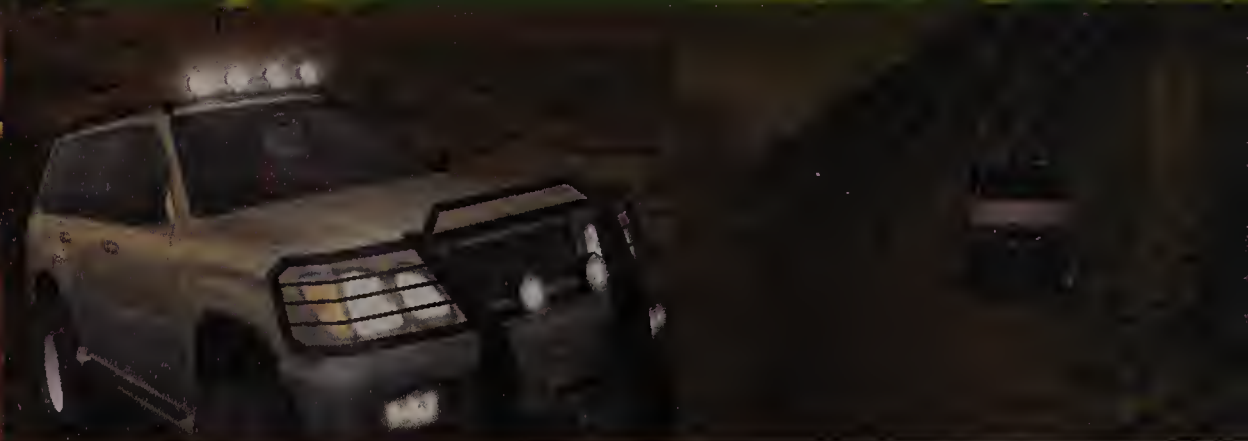


Ever felt like the whole world was against you?  
You're about to experience déjà vu.

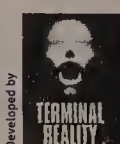
As if Mother Nature wasn't enough to deal with,  
now the number competitors you must climb over  
to get to the top just increased by a few million.  
Introducing 4x4 Evolution, the first game with  
internet connectivity for heavy-duty off-road  
competitions between Sega Dreamcast, PC, and  
Mac users simultaneously. The world is far from  
a level playing field.



These screens were taken from the PC version.



ALL THE TOP SUVs AND TRUCKS FROM LEADING MANUFACTURERS TO CUSTOMIZE • 16 MERCILESS OFF-ROAD COURSES, EACH WITH THEIR OWN ACTIVE ENVIRONMENT, MUSIC SC



4x4 Evolution, the 4x4 Evolution logo, the 4x4 Evo logo and the Terminal Reality logo are trademarks of Terminal Reality, Inc. Gathering of Developers and godgames are trademarks of Gathering of Developers, Inc. All other trademarks and trade names are properties of their respective owners. Sega is registered in the US Patent and Trademark Office. Sega, Dreamcast and the Dreamcast logo are either registered trademarks or trademarks of Sega Enterprises, LTD. (C) SEGA ENTERPRISES, LTD 2000. All Rights Reserved. The ratings icon is a trademark of the Interactive Digital Software Association.





NO DIFFICULTY • GO ANYWHERE GAMEPLAY — NO PREDETERMINED TRACK • ACCURATE PHYSICS, PHOTO-REALISTIC GRAPHICS, AND UNFORGIVING ARTIFICIAL INTELLIGENCE.

Sega © Dreamcast™



Circle 110 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)





Maxwell  
PLUM  
Jam

LOVE



**WHETHER YOU WANT TO MAKE IT, BUY IT, OR JUST WRAP  
IT UP, CHECK OUT OUR GIFT-GIVING IDEAS**

# Macworld's HOLIDAY GIFT GUIDE

It's almost here—the time of year when sleigh bells jingle, fires crackle, and tinsel becomes scarcer than a bug-free copy of Windows 2000. But if the dread of long checkout lines and an empty bank account has you feeling less than cheerful this holiday season, *Macworld* can help. We'll show you how to avoid the crowds with five

fun holiday projects you can make at home. And so your creations don't resemble the lopsided clay angels you gave your mother when you were eight, we've included loads of tips and techniques to ensure perfect results. But in case you do feel like braving the malls (online or off), we searched through hundreds of products and found seven gift ideas sure to please every Mac user on your shopping list. So stop fretting, pour yourself a nice big cup of hot chocolate, and settle back with *Macworld's* fourth annual Holiday Gift Guide.



photography by **SCOTT PETERSON**



YOU'VE GOT TO SEE IT IN **EPSON** COLOR.

■ With ordinary printers, you see the trees.

■ With our printers, you see the bonsai trees.



The six ladybugs are the clue. Seeing them, you realize what you thought were giant trees are actually small bonsai. It's just one example of the extraordinary image quality you get from an Epson® printer. Because with 2880 dpi, nothing goes unnoticed. And just as you see here, it's the quiet little things that often speak the loudest. Only Epson printers have: 2880 x 720 dpi • Micro Piezo™ technology, for a cleaner, smaller droplet – as small as 3 picoliters • Fast print speeds – up to 13 PPM black/10.5 PPM color (with the Epson SC980) • Quick-drying inks • PC/Mac/USB compatibility. And remember, only Epson supplies guarantee Epson quality. For more info, call 1-800-GO-EPSON or visit [www.epson.com](http://www.epson.com).



Epson Stylus Color Ink Jet Printer.  
Sheer brilliance starting at \$99.

Epson, EPSON Stylus and Micro Piezo are trademarks/registered trademarks of Seiko Epson Corp. © 2000 Epson America, Inc.

Circle 62 on card or go to [www.macworld.co./getinfo](http://www.macworld.co./getinfo)



5 FUN PROJECTS YOU CAN MAKE WITH YOUR MAC

# SOME ASSEMBLY REQUIRED



**REMEMBER THE SENSE OF WONDER** you felt as a kid during the holidays? Everything seemed bright, warm, and infused with magic. Now that you're older, it can be hard to feel that same awe amid the jostling elbows at crowded malls and the lackluster customer service of online shopping. This year, recapture the holiday spirit by bringing back a childhood tradition: homemade gifts. With a little imagination and your trusty Mac, you can create unique presents and decorations to delight your family and friends—and have fun along the way.

by **KELLY LUNSFORD**



## Seasonal Table Settings

Add a festive touch to your holiday-dinner fare this season with personalized linens. Scan winter berries, ornaments, or even strings of colored lights directly into your Mac; then combine them in a graphics program to create your design. (For tips on scanning 3-D objects, see "Scan Anything," *How-to*, elsewhere in this issue.)

Before you print your design onto iron-on transfer paper, flip the image in your graphics program so it appears backward. Experiment to find the best temperature and pressure by first ironing the design onto scrap fabric. When you're satisfied with the results, transfer your image onto plain cloth napkins, table runners, or place mats.—Artist: AMY CONGER

---

**TOOLBOX** Gather up holiday objects for your design, a flatbed scanner (see *Reviews*, elsewhere in this issue), image-editing software, a color ink-jet printer, iron-on transfer paper, a clothes iron, and cloth table linens.

---

## Now Playing

Share special moments with distant friends and family by producing your own home movies. Thanks to the release of iMovie 2, Apple's \$49 video-editing software ([www.apple.com](http://www.apple.com)), you don't have to have a Hollywood budget to produce enjoyable movies—complete with a soundtrack and titles. (For tips on preparing and exporting your iMovies to the Web, a CD, or back onto videotape, see "Wrap Up Your iMovie," *How-to*, elsewhere in this issue.)

Send your movie off in a CD jewel case or VHS tape box you designed with your image-editing program. Add a title, cast list, and description of the movie—even fake reviews from movie critics. You can buy paper specially designed for CD and tape cases at paper-supply stores or from Web sites such as Neato ([www.neato.com](http://www.neato.com)).—Artists: ELEANOR AND DAVID LEISHMAN

---

**TOOLBOX** You'll need a digital camcorder (using an analog camcorder requires extra equipment—see instructions at [www.macworld.com/2000/09/04/imovie.html](http://www.macworld.com/2000/09/04/imovie.html)) and Apple's iMovie 2 software.





**TOOLBOX** For your box designs, you'll need a graphics program that can position text upside down, decorative fonts, and a color ink-jet printer. Also collect a ruler, small boxes, photo-quality ink-jet paper, and spray glue.



## Creative Containers

You spent a lot of time searching for the perfect gift, so why not make the package as special as what's inside? Place small presents in boxes printed with good tidings, prayers, or photographs. You don't have to be a professional artist to create these simple boxes. Here, text serves as the main design element. Some decorative fonts, such as Webdings and Zapf Dingbats, even include stars, snowflakes, or other small illustrations you can combine with text to add seasonal flavor. You can find scores of unusual fonts on the Web (see "Batteries 'Not Included'").

Arrange the top and sides of your box lid in a graphics program such as CorelDraw 8 LE. Then print the design on glossy photo paper, cut it out, and glue it to your box. To protect the surface and give the box a sheen, lightly brush varnish over the top and sides.—Artist: KELLY LUNSFORD

*continues*

**TOOLBOX** For this project you'll need digital copies of family photographs, Adobe Photoshop (the \$609 full version or \$99 Limited Edition), photo-quality ink-jet paper, and a color ink-jet printer.



## Picture-Perfect Presents

Since calories don't count during the holiday season, it's the perfect time to share your talent in the kitchen or garden. And instead of using plain jars or bottles, give your famous homemade goodies the attractive and personal labeling they deserve—featuring yours truly, of course.

For these projects, we used Adobe Photoshop LE's Quick Mask tools to extract the faces we wanted from the backgrounds we didn't. (For step-by-step instruction on removing a photo's background in Photoshop, see "Get to the Good Stuff," *How-to*, elsewhere in this issue) Once you've separated the subject from the rest of the photo, you can place it on different scanned backgrounds or in your hand-drawn designs.—  
Artist: ELEANOR LEISHMAN  
*continues*

### More Info:

[www.macworld.com/2000/12/features/giftguide.html](http://www.macworld.com/2000/12/features/giftguide.html)

Go to Macworld.com for more information on these projects and for other holiday fare.

LINK





# The Cure For Your Computer's Aches And Pains.

**H**as your Mac® seen healthier days? Maybe it caught a bug. Is badly congested. Or suffers from hardware headaches. Fortunately, there's a simple remedy for such ailments. ... Norton SystemWorks™ for Macintosh®.

Norton SystemWorks gives your entire Macintosh a complete check-up. Then, cures what ails it. Plus, it inoculates your computer against

viruses, while preventing it from getting sick in the first place.

So to keep your Mac out of the infirmary, here's our diagnosis: Take the all-in-one cure, Norton SystemWorks for Macintosh. You'll find it over the counter at your nearest software store, or visit [www.symantec.com/mac](http://www.symantec.com/mac).

Compatible with Mac O/S 8.1 or greater.

Circle 126 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

Symantec and the Symantec logo are U.S. registered trademarks of Symantec Corporation. Norton SystemWorks is a trademark of Symantec Corporation. Mac and Macintosh are registered trademarks of Apple Computer, Inc. Copyright © 2000 Symantec Corporation. All rights reserved.

**SYMANTEC**



# \$10 Bucks Says You'll Have FUN!

The MacSoft \$10 Cash Rebate.

It's real  
simple.

Buy 2  
Get \$10  
back by mail.

We're sending you ten bucks for taking home games we've developed with big names like Hasbro and Tom Clancy. Choose from a hit list of 15 great MacSoft titles (see selection at left).

You get to shoot things up, rev things up, blow things up or think things up and you get a ten dollar check for doing it.

You want the details? Sure you do. Just go to your favorite software retailer and look for the MacSoft \$10 Rebate.

Available at

**COMPUSA**  
THE COMPUTER SUPERSTORE

Totally  
Mac  
Totally  
Fun

and other fine retailers.

**MacSoft®**

[www.wizardworks.com/macsoft](http://www.wizardworks.com/macsoft)



ACTIVISION  
Microsoft



All trademarks and registered trademarks are the property of their respective owners.

Circle 30 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



## Holiday Cards That Pop

Your holiday greetings will stand out from the crowd on these handmade pop-up cards.

Though creating the cards isn't difficult, producing several at once can be time consuming and tedious. Fortunately, your Mac can speed and simplify the process. Instead of creating each card from scratch, use your favorite graphics program to perfect your pop-up design. You can quickly customize each card with different background colors, illustrations, and photographs. Then personalize your message to each recipient.

Printing from a proven template ensures perfect results every time. Now you're ready to cut, paste, and add finishing touches to your cards. (To see how our artists made these pop-up cards, go to [www.macworld.com/2000/12/features/popup.html](http://www.macworld.com/2000/12/features/popup.html).)—Artist: DAMORE JOHANN DESIGN

## Batteries Not Included

Whatever you need in the way of inexpensive images, hard-to-find fonts, or unusual project ideas, chances are it's available online. To help you sort through the clutter, *Macworld* scoured the Web for useful—and unusual—art supplies that won't break the bank. Here's what we found.

**Paper Supplies** [www.edps-nj.com](http://www.edps-nj.com) This Web site is a creative person's shopping heaven. It has everything from basic photo and transfer papers to more unusual choices such as ink-jet vellum paper and printable wood veneers. The site even offers ideas and directions for creative projects.

[www.ink4art.com](http://www.ink4art.com) Another fabulous site for paper products, this catalogue includes greeting cards, canvas paper, sticker paper, and "Inky Shrinky"—the amazing clear film that shrinks when exposed to high heat (ah, the memories).

[www.avery.com](http://www.avery.com) Here you can find labels of nearly any size, shape, or color you can imagine.

**Fonts** [www.myfonts.com](http://www.myfonts.com) This site has a tremendous selection of display and text fonts, with frequent specials starting as low as \$10. You can also track down that mystery font you saw in a magazine: just upload a scanned copy of the font, and the site will find the closest matches in its database.

**Clip Art** [www.clip-art.com](http://www.clip-art.com) Free clip art that's actually attractive is rare on the Web, but this site has thousands of fun images, free for the taking. Choose from themes including holidays, animals, and sports.

**Stock Photography** [www.corbis.com](http://www.corbis.com) Beautiful photos are a bargain for the home crafter here. Download images from the "personal use" collection for \$3 each, or browse the extensive royalty-free gallery (prices start around \$20).—LOTUS ABRAMS



**TOOLBOX** You'll need a color printer and heavy laser card stock for your pop-up-card design. (Most consumer printers can handle paper as heavy as 90 pounds, but check your printer's manual for specific limits.) To assemble your cards, you'll want to have on hand an exacto knife, spray mount, and a ruler.

Associate Editor KELLY LUNSFORD provides tips and ideas for creating handmade crafts with the Mac in her "Homemade Mac" column on [Macworld.com](http://Macworld.com).



# SATISFACTION GUARANTEED

## 7 GIFTS TO PLEASE EVERYONE ON YOUR LIST



photography by  
Scott Peterson

### For the Commuter

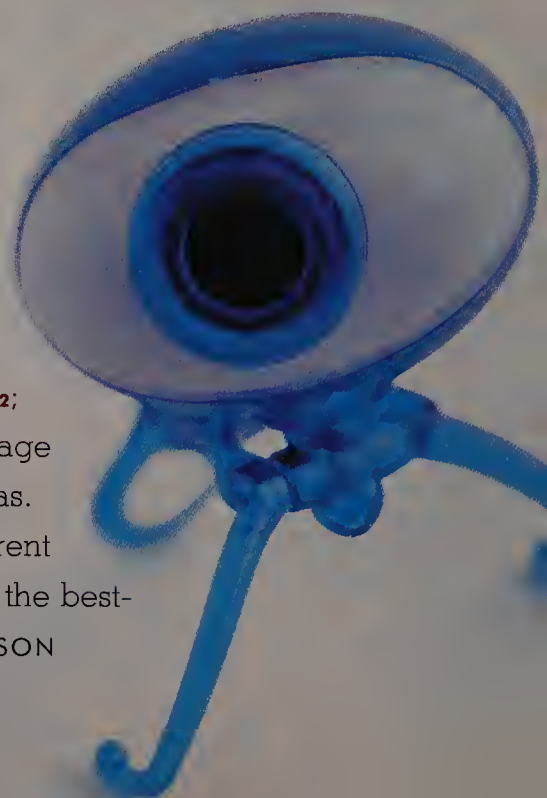
Does anyone on your gift list like listening to music on-the-go? The **Aiwa HP-CN5** noise-canceling headphones (\$36) are designed for use in noisy environments, such as airplanes or subway cars. Outside each earpiece is a small microphone that "listens" for noise and attempts to counteract it. The price may seem high for headphones, but for someone who needs to cut out noise, these could be the perfect gift.—JONATHAN SEFF

**Aiwa, 800/289-2492, [www.aiwa.com](http://www.aiwa.com)**

### For the Lover of Adorable Space Aliens

Filming short desktop videos and taking quick still photos to e-mail to friends and family is easy with iRez's **Kritter USB Web cam** (♦♦♦½; *Reviews*, August 2000; \$100). It produces smooth video, and its image quality is superior to that of other similarly inexpensive video cameras. You can choose from blue, orange, black, or ice to match Apple's current Macs. Be sure to download the latest driver software from iRez to get the best-possible image quality.—BRETT LARSON

**iRez, 480/922-0044, [www.irez.com](http://www.irez.com)**





## For the Audiophile

Home computers, quite frankly, were not designed with good sound in mind. I'd rather listen to music blaring from my clock radio than suffer through the noise that comes out

of even the slot-loading iMacs, with their pair of Harman Kardon

speakers. Enter **Harman Kardon**

**SoundSticks** (★★★★½; *Reviews*,

November 2000; \$200). Harman

Multimedia and Apple Computer

teamed up to create a system

that's cutting-edge in sound

quality and style. It includes a

booming bass module that also

powers two satellite speaker

sticks—each with four 1-inch

transducers for cleaner sound

than you can get from a single

speaker.—JONATHAN SEFF

**Harman Multimedia,**

**877/266-6202,**

**[www.harman-multimedia.com](http://www.harman-multimedia.com)**

## For Grown-Ups

Time to kiss the hockey-puck mouse good-bye

and say hello to the sleek and sturdy **Apple**

**Pro Mouse** (★★★★; *Reviews*, October 2000;

\$59). For the adult hand, this mouse is more

comfortable and precise than its predecessor.

It uses a beam of light and an optical sensor

to detect movement.—ADRIENNE ROBILLARD

**Apple Computer, 800/692-7753, [www.apple.com](http://www.apple.com)**

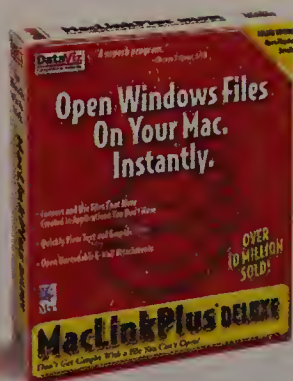
*continues*



What the %\*#@ is this .doc

**It's been stuffed, zipped, encoded, compacted,  
attached, compressed and "saved as"...**

**If only you could open it!**



## **Don't Get Caught With a File You Can't Open.**

Oh the things that happen to files before they reach your Mac. They're compressed to save space. They're created in versions of software you might not have. They may even originate on (gasp) a Windows® machine. And unless you have MacLinkPlus Deluxe 12.0, your odds of opening those files fall somewhere between "slim" and "none". Because only MacLinkPlus can translate and open documents no matter where they come from. So you don't have to worry about file types, document formats, or high-falutin' stuff like Binhex encoding. All you do is double-click. And the file opens. What could be easier?

**DataViz®**  
**Compatibility. Instantly.**

*MacLinkPlus Deluxe is one of several Mac, PC and Palm™ handheld programs from DataViz®, the compatibility experts. Buy or upgrade at many software retailers, including:*

**[www.dataviz.com/mwspecial](http://www.dataviz.com/mwspecial)**  
**1-800-808-4825**

**COMPUSA**  
THE COMPUTER SUPERSTORE™

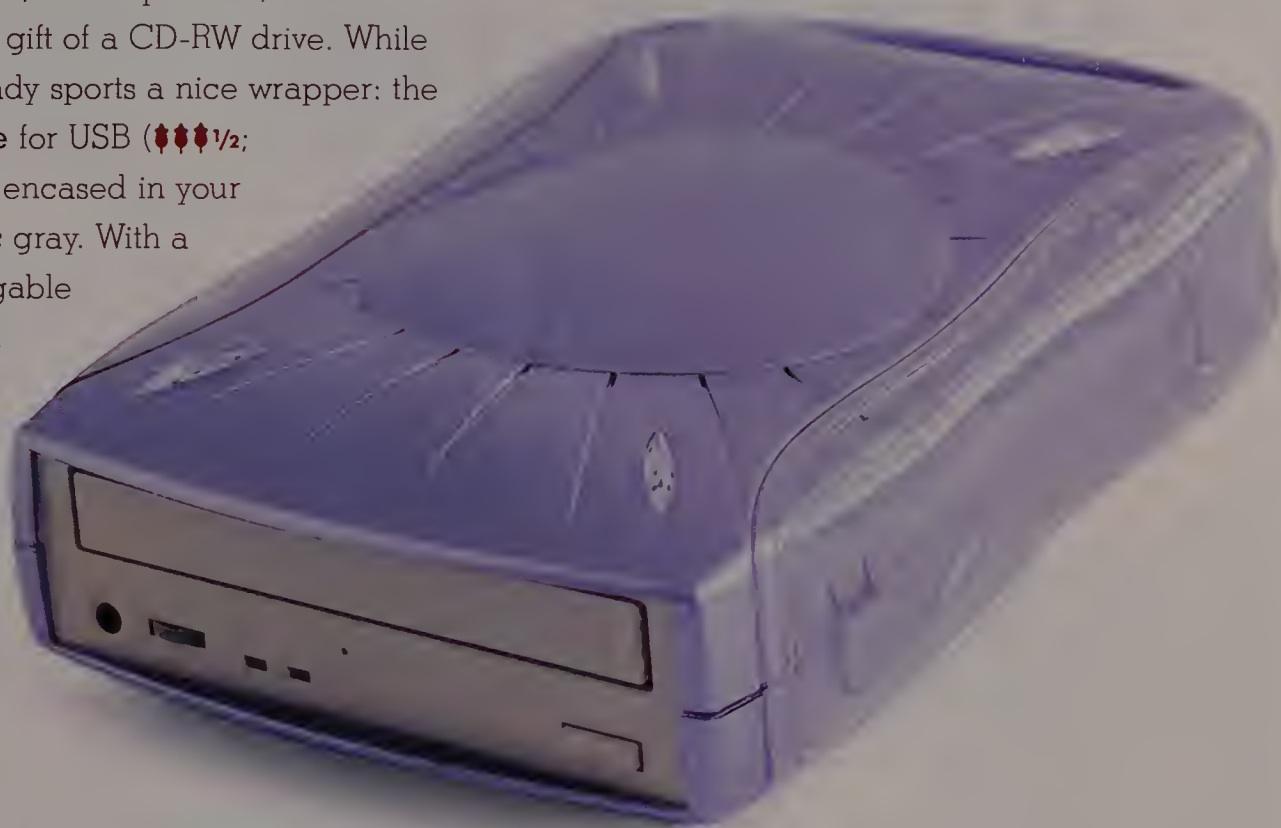
**MICRO CENTER**  
THE COMPUTER DEPARTMENT STORE

**FRY'S**  
ELECTRONICS



## For the Data Pack Rat

Anyone who needs to archive data, back up drives, or burn music onto CDs will cherish your gift of a CD-RW drive. While you're at it, choose one that already sports a nice wrapper: the **CD Revo Cyclone CD-RW Drive for USB** (♦♦♦½; *Reviews*, November 2000; \$295), encased in your favorite iMac colors or in metallic gray. With a built-in handle and the hot-pluggable USB interface, it's ready to travel. But don't expect to get read times above 6x (because of USB's bandwidth limitations); you'll want to use an internal CD-ROM drive for intensive tasks such as installing software. Despite the limitation, this drive is a particularly useful gift.—JAMES GALBRAITH



**Cyclone Duplication, 949/470-4795, [www.cdyclone.com](http://www.cdyclone.com)**



## For the Animal Lover

Dress your input device in its furry finest (whenever you're not using it) with a **Mouse House** (\$4). Available in gray or pink.—BONNIE HUIE

**American Covers, 800/800-9525, [www.americancovers.com](http://www.americancovers.com)**

## For the Art Collector

Don't get them the same old clip art.

Try out **Art Explosion 750,000** (\$200), a collection of three-quarters of



a million royalty-free images. Among them are fine art; technical symbols; vector and raster images; photographs; Web graphics and animations; and last but not least, 1,800 fonts from Agfa and Bitstream. You can use the images—which range from 72 to 300 dpi—with popular programs such as

Adobe PageMaker and Photoshop, Microsoft Word, and QuarkXPress.—ADRIENNE ROBILLARD **m**

**Nova Development, 800/395-6682, [www.novadevelopment.com](http://www.novadevelopment.com)**

### More Info:

[www.macworld.com/reviews](http://www.macworld.com/reviews)

For more gift ideas and to see full reviews of the mouse-rated products in this article, visit Macworld.com.

LINK

# WRAP UP YOUR iMOVIE

by CHRISTOPHER BREEN

**YOU'VE HAD A LONG YEAR:** the 16-hour labor; the invigorating midnight feedings; that first word (which you're sure was "daddy"); and the first birthday party, where you learned that babies don't know the meaning of *sharing*. Now you've reached the moment that really matters—dishing out the painstakingly edited iMovie footage of your parental odyssey to your kith and kin, just in time for the holidays.

Yet during the past year you've learned to be cautious. Have you compressed your video enough that the Des Moines crowd will be able to view your Web-based work over their 56K modem connections? Will the CD-ROM you've burned for Aunt Vilma play on her PC? And how

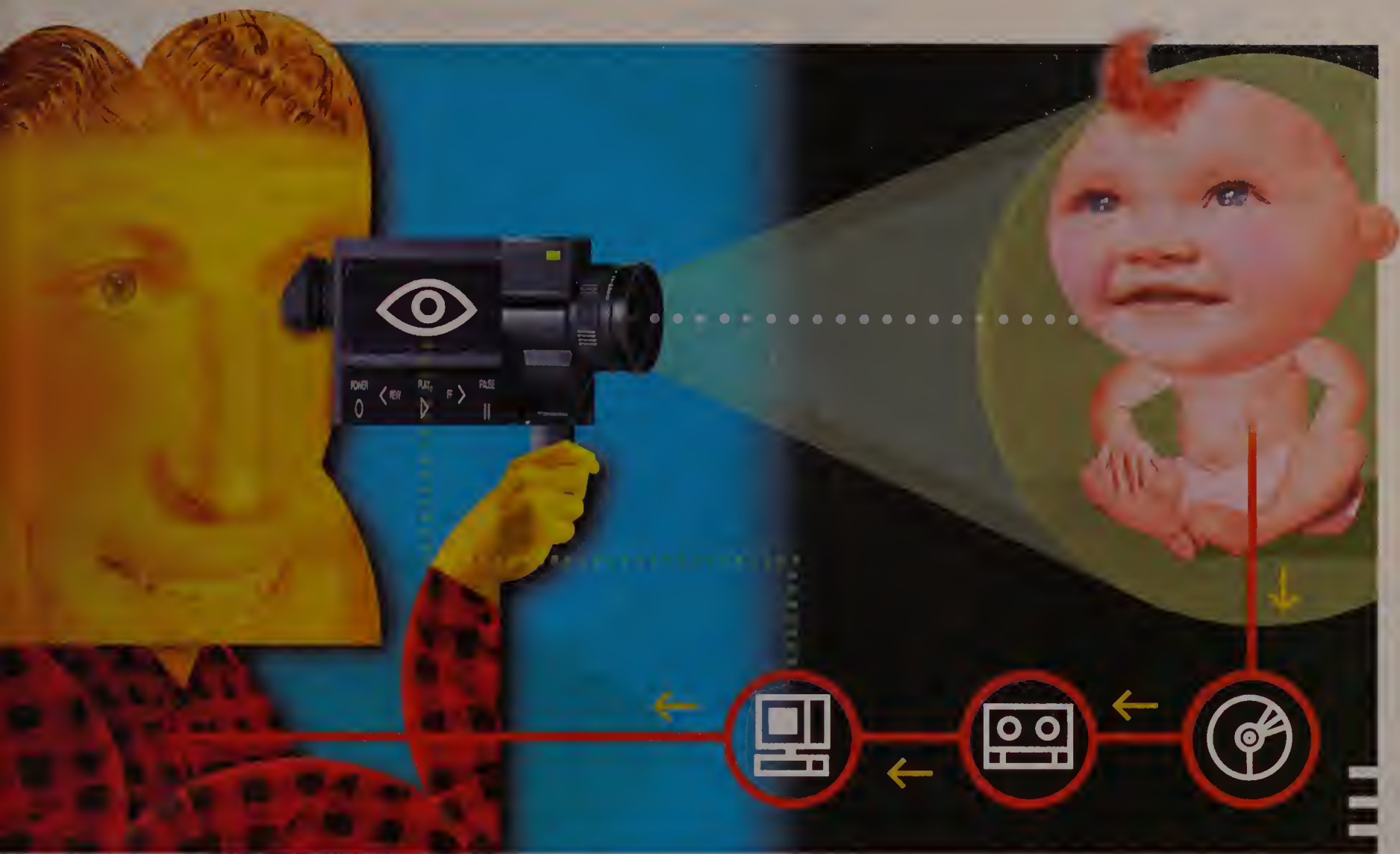
likely is it that an oft-used VHS tape will survive repeated play in Cousin Tricia's ancient VCR?

Relax. You've got enough on your mind as it is. We'll show you how best to transfer your iMovie to the medium of your choice—the Web, a CD-ROM, or videotape—in steps easy to absorb even after months of interrupted sleep.

## DECEMBER'S HOW-TO ARTICLES

- 72** SCAN ANYTHING
- 76** GET TO THE GOOD STUFF
- 80** MAKING OS X MORE FAMILIAR
- 85** MAC 911





### The Web You Weave

When it comes to sharing your iMovies with family and friends, the Web provides the greatest exposure for your video vision. After all, it's a cinch to send folks your Web page's address through e-mail, plus you'll save a bundle on postage, VHS tapes, and CD-ROM discs. Unfortunately, all your efforts will remain unwatched if you don't address two issues—storage and bandwidth.

**The Problems** iMovie creates movies in the QuickTime format, and uncompressed movies are gargantuan—a full-screen QuickTime movie (that's 720-by-480-pixel resolution) at 30 frames per second (fps) requires around 30MB of hard disk space for each second of video. It would be difficult to post a five-minute movie at this resolution—and no Web connection would be fast enough to play it. To create a Web-friendly iMovie, you must reduce the movie's file size and make your movie viewable over a dial-up connection. Doing so isn't difficult, but you'll need to take some care while producing the movie and look beyond iMovie's default Export settings.

**Shoot for the Web** If you know your movie is going straight to the Web, avoid unnecessary motion in your video—pans or rapidly moving objects, for example—and use a tripod when you can. Most video compressors don't handle motion well, causing artifacts to appear in areas where the camera or your subject jinks from place to place.

Next, keep your shots simple. Many video compressors work by describing areas of a scene rather than the state of each pixel. For example, it takes far fewer bytes to relay that "the top half of the screen is white for the next 60 frames" than to detail the color of each pixel in every frame of the video. You'll gain greater savings from your compressor—and your Web videos will look better—if you shoot against a plain, unchanging background. When shooting on the seashore, for example, choose a background of beach, sky, and distant water, instead of the rolling surf.

**Edit for the Web** Remember that your files will be smaller if you cut extraneous material. iMovie titles, for example, usually look washed

*continues*



# Cross-Platform Concerns

Apple has taken great care to make QuickTime compatible with both Mac OS and Windows. Despite Apple's efforts, differences that will affect your movies remain. When preparing your iMovies for the PC, keep these tips in mind:

# 1

**Lighten Up** Due to differing display settings, movies that look great on a Mac **A** are dark when played on a Windows machine **B**. iMovie doesn't allow you to adjust for monitor variations, but you can make your iMovie look better on a Windows PC by clicking on iMovie 2's Effects button, selecting the Brightness/Contrast option, and using the Brightness slider to make your iMovie lighter. Regrettably, there's no perfect compromise—the movie will be either a bit too bright for a Mac or a little too dark for a PC.



out and unfocused on the Web, so cut them from your video and post the information as text on your Web page instead.

Also, avoid transitions in which the background shifts dramatically—fades and dissolves, for example. After your file is compressed, you won't see a smooth transition from one scene to another. Whenever possible, use quick cuts rather than fades and dissolves.

**Export for the Web** When you select the Export Movie command from iMovie's File menu and choose the Export To QuickTime option, you'll spy the Web Movie Small option in the Format pull-down menu. This setting will produce Web-friendly iMovies. But you can also create a Web movie that takes up less storage space and begins playing before it's completely downloaded by selecting the Expert option and changing the settings in the Expert QuickTime Settings window. Follow along:

The first thing to do is change your codec (compressor-decompressor). In

the original iMovie, the default codec for the Web Movie Small option was the Sorenson Video codec. For iMovie 2, Apple chose the H.263 codec because it compresses more quickly than the Sorenson Video codec. But Apple had it right the first time. Although the Sorenson Video codec takes longer to compress video and demands more processing power from the computers that view your movie, it produces better-looking video than H.263—particularly when you've created a movie for fast Internet connections.

Next, for greater storage-space savings, click on the Audio Settings button and select the Mono option—doing so cuts the size of the audio track in half and will usually suffice.

Finally, click on the Prepare For Internet option in iMovie 2's QuickTime Expert Settings window and select Standard Web Server. This causes your movie to begin as soon as QuickTime feels it has enough data to play the movie from beginning to end without interruption.

**Final Touches** If you intend to make your iMovie viewable by those accessing the Web with a 56K modem, you should make additional changes.

Reducing the frame size and fps rate makes for a slimmer movie. Setting an appropriate data rate—around 5 KBps (kilobytes per second) for a 56K modem—helps ensure that your movie won't skip.

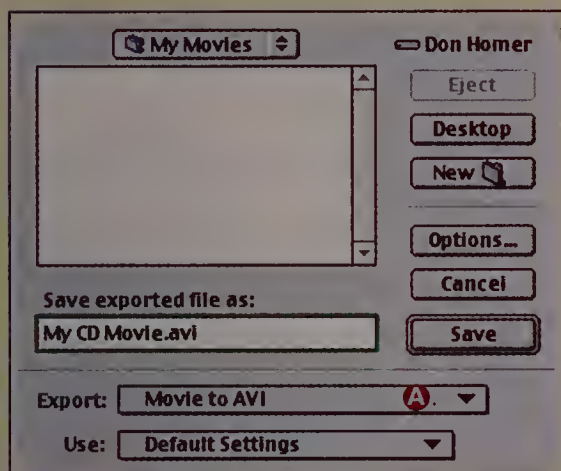
Spacing *keyframes*, the reference frames that detail the state of each pixel in a frame, far apart also reduces file size. Inserting a keyframe every second will help ensure smooth video with the Cinepak codec—a predecessor to Sorenson Video—but other codecs, such as Sorenson Video, perform better when a keyframe occurs only every ten seconds or so. To read our recommendations for a movie that will be viewed over a 56K modem connection, see "A Smaller Web Movie."

**Beyond Exporting** Now that your iMovie is prepared for Web viewing, where on the Web do you put it? Nearly every ISP (Internet Service Pro-



# 2

**When in Rome** We understand that QuickTime is one of the finest video formats around, but not every Windows user has a copy of QuickTime on his or her hard drive. While you can insist that your Windows pals download and install a copy of QuickTime ([www.apple.com/quicktime](http://www.apple.com/quicktime)) on their



PCs in order to view your CD-ROM-based iMovies, it may be easier to simply include both QuickTime and AVI—Windows' Audio Visual Inter-leave format for video—versions of your work on the CD. To create an AVI version of your movie, open the movie in QuickTime Pro, select Export from the File menu, and choose the Movie To AVI option **A**.

# 3

**PC Compatibility** Insert a Mac-formatted CD-ROM disc into a PC's CD-ROM drive, and the PC will do little more than shrug its virtual shoulders and refuse to mount the disc. For your disc to be recognized by a Windows machine, you must format the CD-ROM as an ISO 9660 disc. The OEM version of Adaptec's Toast 4 (800/442-7274, [www.adaptec.com](http://www.adaptec.com))—the CD-R creation application that ships with nearly every current CD-R writer—allows you to create only Mac-formatted discs.

Format	
Mac Volume	%1
Files & Folders	%2
✓ ISO 9660	%3
Mac/ISO Hybrid	%4
Audio CD	%5
CD-i	
Video CD	
Enhanced Music CD	
Disc Copy	
Disc Image	
Multitrack CD-ROM XA	
Audio Tracks	%A

To create PC-compatible discs, you must pay \$80 for Toast 4 Deluxe.

vider) will provide you with a modicum of storage space (usually between 2MB and 10MB) for a personal Web page. You can use an editing program to create and upload a Web page that contains your iMovie.

But there's an easier way: Apple's iTools Apple provides 20MB of storage space with each free Mac.com account, along with tools that make it easy to upload your iMovie. If you need additional storage, you can purchase 100MB, 200MB, or 400MB of space for \$100, \$200, or \$400 a year, respectively. Just go to [www.apple.com](http://www.apple.com) and click on the iTools tab to sign up for a Mac.com account, mount and open your iDisk (a virtual hard disk), and drag the iMovies you want to display to the Movies folder. Then click on the Create iMovie button, select a background, and click on the Edit Page button. Click on the Choose button to select one of the movies in your iDisk's Movies folder, and finally, click on the Apply button to place the movie on the page.

## A Discful of Delight

A Web page offers wonderful exposure, but let's face it—it's not the kind of thing you can wrap up in colorful paper and send to Grandma on the occasion of her 112th birthday. For more-tangible and better-looking results, burn your iMovie onto a CD-ROM.

**The Problems** Find out what kind of computer and CD-ROM player your disc will be played on. Aunt Vilma's PC won't be able to read your Mac-formatted CD-ROM (see the sidebar "Cross-Platform Concerns"). And the Export settings you've used may produce a disc that plays just fine on a 12x CD-ROM player but not on Uncle Fred's 1x player. If you're burning a disc for a slower CD-ROM player, consider dropping the data rate (from 200 Kbps to 100 Kbps, for example) and resolution (from 320 by 250 pixels to 240 by 180 pixels).

**Shoot for CD-ROM** Your best work will be clearer on CD-ROM—and so will your worst, so pay attention to things such as lighting and audio

when recording your footage. Use your camcorder's backlight control to make backlit images discernable, for example, and watch for odd shadows and reflections of you and your camcorder in windows and mirrors. For "talking head" shots, use a clip-on or wireless microphone instead of the camcorder's built-in mic.

**Export for CD-ROM** iMovie 2's CD-ROM Movie Medium export setting will produce an adequate CD-ROM movie in nearly all cases. We'd suggest just a couple of minor tweaks:

First, change the compressor from the H.263 codec to Sorenson Video. You might also be tempted to change the audio codec to QDesign Music 2, but severe compression is unnecessary for the storage capacity of a CD-ROM disc.

When compressing any movie, however, it's a good idea to combine a demanding codec—one that requires a lot of processing power—with one that's less demanding. Both the

Sorenson Video and QDesign codecs require a robust processor for decompression, and using the two in a single movie can drag down less-powerful computers. If you're creating movies for slower computers, consider combining Sorenson Video with IMA 4:1, or QDesign Music 2 with Cinepak.

If you're interested in reducing your movie's file size without compromising video quality, you can select a mono soundtrack. For our CD-ROM recommendations, see "A Smaller CD-ROM Movie."

**Beyond Exporting** To create a CD-ROM disc, you need a CD-R burner. Must you pungle up hundreds of dollars to buy your own? No. Some branches of printing services such as Kinko's ([www.kinkos.com](http://www.kinkos.com)) can burn a CD-ROM for you at a cost of around \$11 a disc.

### Direct to Video

The fact that you're reading *Macworld* hints that you have a Mac of your own. Regrettably, not everyone has a computer, much less a Mac. Most people do have a VCR, however, and sending a tape, though old-fashioned, may be the best way to share your movies with your nearest and dearest.

While moving your iMovie to tape isn't difficult, the following tips will help you produce better-looking movies.

**The Problems** A VHS tape has only so much life in it, and a tape that's recorded every episode of *Friends* is going to be stretched and worn. If your iMovie is important enough to dub to tape, it's important enough to place on a *fresh* tape.

**Prepare for Tape** In all likelihood, your Mac doesn't bear an S-Video or Composite Video port, so you'll need to use your digital camcorder as a go-between when transferring your iMovie to your VCR. Use a fresh tape

A Smaller CD-ROM Movie		
	iMOVIE 2'S CD-ROM MOVIE MEDIUM DEFAULT SETTINGS	RECOMMENDED SETTINGS
Video codec	H.263	Sorenson Video
Resolution (in pixels)	320 × 240	320 × 240
Frames per second	15	15
Keyframes	N/A *	75
Data rate (Kbps)	N/A *	100
Audio codec	IMA 4:1	IMA 4:1
Bit rate	16	16
Resolution	22.05kHz	22.05kHz
Channels	Stereo	Stereo or Mono
Prepare for Internet option	Off	Off
* N/A = not applicable.		

A Smaller Web Movie		
	iMOVIE 2'S WEB MOVIE SMALL DEFAULT SETTINGS	RECOMMENDED SETTINGS
Video codec	H.263	Sorenson Video
Resolution (in pixels)	240 × 180	192 × 144
Frames per second	12	7.5
Keyframes	N/A *	75
Data rate (Kbps)	N/A *	5
Audio codec	QDesign Music 2	QDesign Music 2
Bit rate	16	16
Resolution	22.05kHz	22.05kHz
Channels	Stereo	Mono
Prepare for Internet option	Off	On/Standard Web Server
* N/A = not applicable.		

in your camcorder, too—not only because of tape wear but also to prevent you from accidentally erasing your iMovie's original footage.

**Export to Tape** String the necessary video and audio cables between your camcorder and VCR (for cleaner video, use S-Video if you have it), and then press the record button on your VCR and the play button on your camcorder. That's it.

If you're dubbing multiple VHS copies of your iMovie, record each copy from the camcorder to the VHS recorder rather than copying from one VHS recorder to another. VHS-to-VHS recording incurs a "generation loss"—meaning that quality degrades when copying between two analog devices.

### The Last Word

Exporting your iMovies to various formats may not be as difficult as raising a child—or even shooting and editing the film in the first place—but everyone can use a little help from iMovie's Export settings.

Now the kid—bathed, fed, and swaddled—is ready to be shown off to the grandparents. With the help of these tips and techniques—and a few elusive hours between feedings—your video should likewise be ready for viewing. **m**

Contributing Editor CHRISTOPHER BREEN uses many of these iMovie techniques when producing Breen's Bungalow, a video feature that appears each month on *Macworld's* CD-ROM.





# MacSOHO?<sup>TM</sup> It rocks!

If your small office has a Mac and PC that need to share files, then you need MacSOHO, from Thursby Software. MacSOHO is the easiest, most cost effective way for your Macs and PCs to become best friends. It's fast, really fast, and secure and it's so simple to use and easy to install on your Macintosh, you'll think it rocks! MacSOHO, the perfect solution for your home or small office.

Download a free evaluation today.



*The File Share Folks<sup>TM</sup>*

[www.thursby.com](http://www.thursby.com)

Circle 124 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

**THURSBY SOFTWARE** has the perfect file share solution to meet your needs.



The ideal solution for the small office where Macs & PCs need to share files.



The fast, easy way to share files and printers between PCs and Macintosh systems.



Achieve true NFS connectivity between your Mac and UNIX systems.



Windows users can access files on any Mac workstation or AppleShare server.



# Scan Anything

## Use Your Scanner to Capture Three-Dimensional Objects

Scanners are designed for scanning flat pieces of paper, but don't let that stop you from experimenting with three-dimensional objects. As long as you observe a few common-sense precautions, you can scan anything lightweight enough to rest on your scanner's glass. Take a look around your house, your backyard, or your street—interesting objects abound, both natural and manufactured. Dried flowers, leaves from the garden, knickknacks, decorative cloth, tools, office supplies: all are fair game.

While it's easy to find scannable material once you start looking, 3-D items can pose some challenges. For instance, handling light and shadow gets a little tricky when you have to leave your scanner lid open. And setting something wet or crumbly on your expensive machine could be risky. Here are practical tips for scanning just about anything, including the oversize, the shiny, the translucent, and even the messy.

For instructions on using Adobe Photoshop to cut out undesirable backgrounds, see "Get to the Good Stuff," elsewhere in this section. And if you'd like some inspiration on ways to use your scans in crafts for the holidays or anytime of the year, have a look at "Some Assembly Required," part of "Macworld's Holiday Gift Guide," elsewhere in this issue. **m**

JANET ASHFORD is a coauthor of six books on computer graphics, including *Start with a Scan: A Guide to Transforming Scanned Photos and Objects into High Quality Art*, Second Edition (Peachpit Press, 2000). Her Web address is [www.jashford.com](http://www.jashford.com).

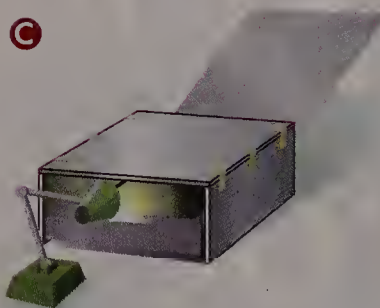
# 1

**Backgrounds for Thick Items** Many objects are too thick to fit beneath your scanner lid, and scanning with the lid up produces a dark background behind your primary object. You can remove this background in an image-editing program—or you can prevent the problem by covering objects with paper, cloth, or board.



Lay a large sheet of bright white paper or poster board over the object to produce an image with a light background **A**.

If the resulting background looks uneven **B**, try creating a three-sided temporary lid out of white foam-core board **C**. Make your cover just tall enough to fit over the object—the closer to the scanner glass the better—and wide enough to straddle your scanner. This type of lid works best for objects no taller than 3 inches.



You can brighten a scan's background **D** by shining a lamp between the scanner and your custom lid, aiming at the white board surface.





# 2

## Light for Transparent Objects

Transparent or translucent objects may appear dark in your image, especially if the scanner lid is up during the scan. Add a white background or a light source to lighten both the object and its background.

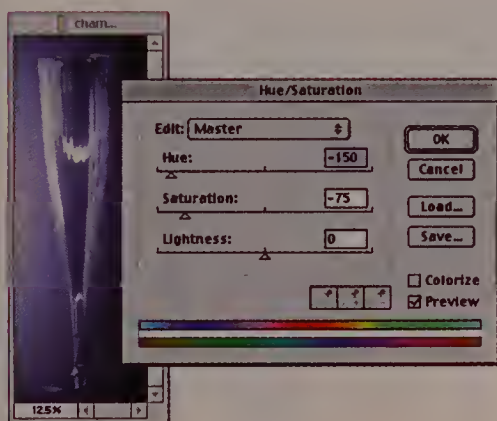


Flat, transparent objects—pieces of stained glass, translucent tissue paper, or gel designs—will scan well if you place a bright white background on top of them before scanning. If still more illumination is needed, try shining a light through a piece of tracing paper placed on top of the object.

For a larger item, such as a wine glass, a background may not reflect enough light; you'll get an image that's dark and lacking detail. Try aiming a light source horizontally across the object (a tensor lamp or an aluminum shop light works well). Put the light as close to the object as you can, but be sure to keep the lightbulb out of the scan area to avoid distortion.



Inconducent light sources can cast a reddish color on a gloss object. To correct this, open the scan in Adobe Photoshop, go to the Hue/Saturation dialog box, and move the sliders until the color is in a more natural-looking blue range.



# 3

## Color Editing for Metallic Objects

Silver spoons, gold necklaces, shiny new wrenches, and even glittery trout can reflect the light that scanners emit, creating a rainbow effect. You can get rid of these high-lights in Photoshop by desaturating your scan and then adding color to your image.



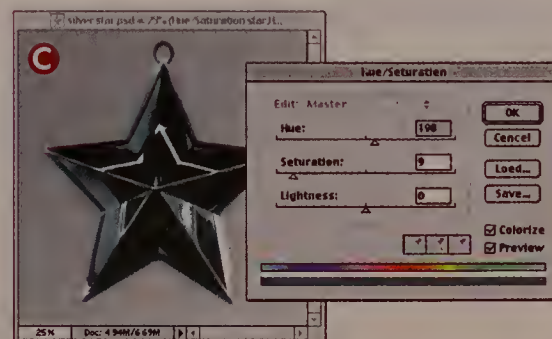
Original scans, including color distortion



Open the Hue/Saturation dialog box (Image: Adjust: Hue/Saturation) and set the Saturation slider **A** all the way to the left to remove the color. The scan will look like a black-and-white photo. For objects made

of stainless steel, this gray-scale version may look truest to the original.

Scans of silver or gold items will look best if you add back some color. Select the Colorize option to restore color to the gray-scale image; then adjust the sliders to find a color you like. Try golds, yellows, or oranges for gold objects **B**, and blues for silver objects **C**.



continues

## 4

**Sections for Large Objects** Items that are larger than your scanner's image area—your old trumpet from high school, a bouquet of flowers, or the catch of the day—can be scanned in pieces and reassembled in an image-editing program.



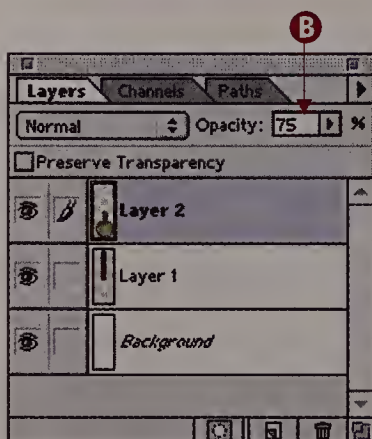
First, scan the oversize object in sections. Be sure to orient the object the same way for each scan, so the direction of the light matches in your final image.

Save each scan separately. You may wish to get rid of any unwanted background color before proceeding.

Open your first scan in Photoshop, and increase the canvas size to accommodate the entire object (plus a little maneuvering room).

Open the second scan, and use the Move tool to click and drag the image from one document to the other **A**. Then position the second image so that it overlaps the first exactly. You may have to rotate the image a little to make it match.

**TIP:** Setting the Layer opacity to less than 100 percent **B** will allow you to see both layers at the same time.



Use the Marquee or another tool to select and delete most of the duplicated image on the second scan, leaving only a small amount of overlap.

Repeat these steps for any remaining sections of your image. If necessary, use the smudge tool to blend the edges.

## 5

**Protection from Messy Objects** Take care when scanning wet items (such as a pear slice) or dusty ones (such as pinecones). Have cleaning supplies handy to make sure that your scanner's works don't get damaged and that future scans will be free of spots and dust.



To protect your scanner from moisture, cover the scanner glass with a piece of clear acetate.

If items you want to scan are dusty or chaffy, clean them first: rinse a dusty leaf and let it dry, or shake popcorn in a sifter to remove small bits. After scanning, clean the glass promptly.

Supplies to keep near your scanner include a soft cloth, window-cleaning solution, paper towels, and an aerosol can of pressurized air (check your local camera shop).





# state-of-the-digital-art



 **Panellink<sup>®</sup>**  
DIGITAL  
**DRIVING DIGITAL**

Panellink Digital powers today's world-class displays. Pristine image quality. Advanced functionality. Future-ready. Panellink also enables next-generation PCs, projectors and TVs. Panellink is digital. And digital is better.

©2000 Silicon Image, Inc. All rights reserved. Panellink and the Panellink logo are registered trademarks of Silicon Image, Inc. in the United States and other countries. All other product names are trademarks of their respective owners.

Explore the full range of Panellink-powered digital products at [digital.better.com](http://digital.better.com)

Circle 149 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



# Get to the Good Stuff

## Easy Steps to Removing Backgrounds from Photos

You and your little one have canned jam to give as holiday gifts. You've used your Mac to create a gift label, and all that's left to do is placing your child's smiling face into it. You've already scanned your most angelic picture of him, but the photo is of a summery scene that just doesn't suit December's jam jars.

No problem. Using the Layer Mask feature in Adobe Photoshop 5.0 and above and Photoshop LE (800/833-6687, [www.adobe.com](http://www.adobe.com)), you can digitally cut your cutie out of that background with greater accuracy than any pair of scissors affords.

Understanding the Layer Mask feature is easy when you think about its name. Before you paint a wall, you generally *mask* the baseboards with tape or paper. Layer Mask similarly obscures some parts of an image, but instead of covering them, Layer Mask makes those parts invisible. And because the image still exists behind the mask, you can easily restore portions of it if you cut out too much.

Once you mask the background, your perfectly silhouetted subject fits into your label, and your work of art is ready to print for the gift basket. **m**

GENEVIEVE MARGHERIO ([gm@genevieve.net](mailto:gm@genevieve.net)) is partial to masks, both as a designer at Chicago's interactive agency Generator ([www.generator.net](http://www.generator.net)) and as someone born on Halloween.

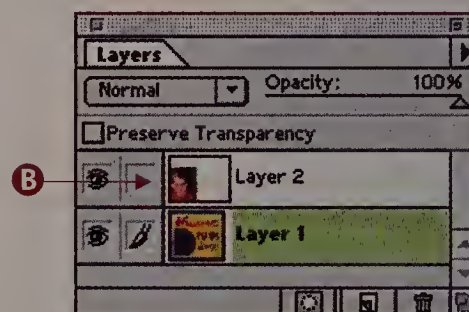
1

**Prepare to Mask** Before you begin surgery to remove the background from your photo, place the scanned image on a new layer above the label you've created in Photoshop.

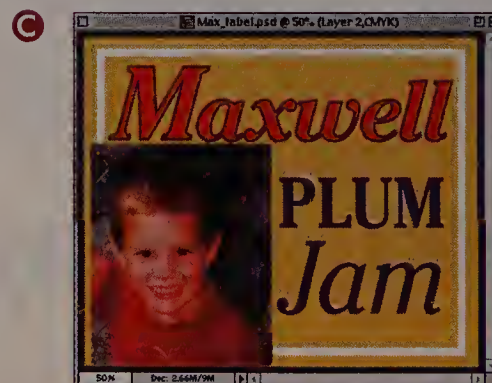
In Photoshop, open both the image you've scanned and the label you've created. Within the scanned document, select the Marquee tool from the Tools palette (or press M) and drag the mouse to create a box around the part of the photo you want to keep. In my example, I'm concentrating on the head and shoulders of a boy I'll call Cousin Max.



Switch to the Move tool (press V) and drag your selection onto the label document **A**. Photoshop will automatically create a new layer to accommodate the selection **B**.



Make sure you've selected the new layer, and then use the Move tool to position the selection over the label **C**.



Now you're ready to mask the portion of the photo that you don't want to appear—in this case, everything except Max's head and shoulders.



# 2

**Create a Loose Outline** Before you do any intricate cutting, rough in the outline you'll want around your subject.



Choose the Lasso tool from the Tools palette (or press L), and click and drag to draw a loose outline around your subject **A**. Next, click on the Add Layer Mask button at the bottom of the Layers palette **B**.



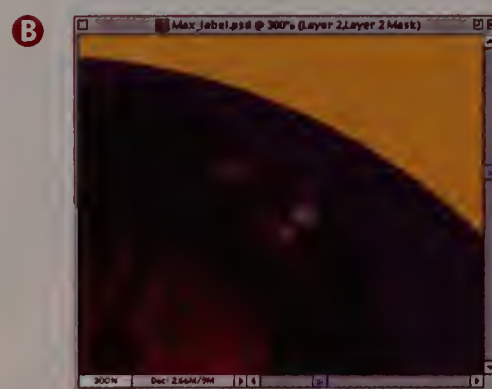
The part of the photo that wasn't selected disappears **C**, and a black-and-white icon indicating the presence of a layer mask appears in the Layers palette **D**, next to the icon of the photograph. Though it looks as if you've erased part of your photograph, nothing has actually been deleted—it's only hidden behind the mask.

# 3

**Zoom In** To accurately trim a complicated shape (such as Max) out of a busy background, you'll need to pay attention. Focus on detail by looking very closely at your image before you cut.



Select the Zoom tool (press Z) and drag a box around a small portion of the photograph to enlarge it **A**. If you've sufficiently zoomed in on your photo, you should be able to see individual pixels—the tiny colored squares that make up images on a screen.



This makes it easier to determine where your subject ends and the background begins. Here I can see which pixels make up Max's hair and which make up the fence pole behind him **B**.

As you draw around your subject in the next step, you'll zoom in and out to gauge which bits of the photo to keep and which to mask. To zoom out, hold down the Option key and click on your image with the Zoom tool.

**TIP:** To zoom in, press ⌘-plus (+); to zoom out, ⌘-minus (-).

continues

“HOUSTON...”

“THE iBOT™ HAS LANDED.”



## THE FASTEST WEB CAM ON EARTH

Orange Micro is first to market with the iBOT, a FireWire-based desktop video camera. iBOT harnesses the speed and power of FireWire unmatched by the slower USB-based web cams. In fact, the inexpensive iBOT uses the same IEEE 1394 technology built into pricey DV camcorders costing over 7 times as much. Orange Micro's iBOT is the desktop video camera for the rest of us,

providing crisp, clear video at a price you can afford. (640x480 @ 30 fps)

The iBOT supports all known software for the following applications: simple video editing, presentations, video teleconferencing, video e-mail, and video monitoring / surveillance. The iBOT pro version includes a microphone and additional free software.



© 2000 Orange Micro Inc.

Circle 61 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

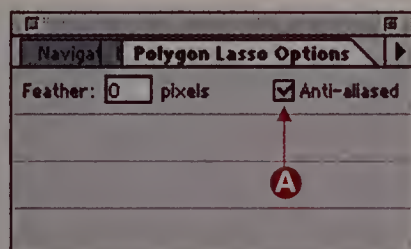


[www.orangemicro.com](http://www.orangemicro.com)



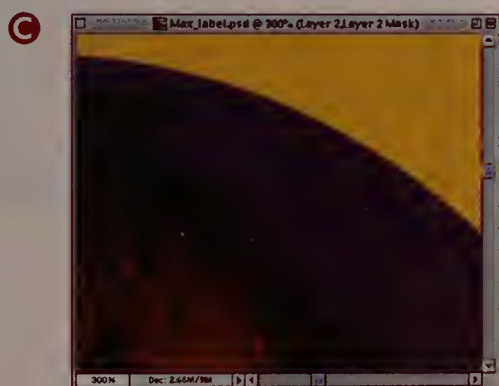
# 4

**Cut It Out** The Layer Mask is in place, you've zoomed in, and it's time to pick up your Lasso tool to perfect the outline of your subject.



Select the Polygon Lasso tool (shift-L). In the Polygon Lasso Options window (Window: Show Options), select Anti-aliased to cut with a smooth edge **A**.

The Polygon Lasso tool lets you define precise points in your outline by clicking on them. (The regular Lasso tool relies on the less-exact movements of the mouse.)



Press D to set the Tool palette color swatches to default values. Then, using the Polygon Lasso tool, draw around the part of the photo you want to hide **B**. Press the delete key to add your selection to the layer mask and make it invisible **C**.



If you mask too much of your image **D**, you can restore a portion to visibility by selecting it with the Polygon Lasso tool and then pressing option-delete **E**.



When you've finished refining your mask, choose Save A Copy from the File menu and choose the TIFF format. This will collapse your layers into one and save the combined image while preserving your layered version. Now you're ready to print.

# Making OS X More Familiar

## Customize the Beta to Act and Feel More Like OS 9

Mac OS X illustrates Apple's readiness to embrace a modern operating system. With features such as protected memory, preemptive multitasking, and the powerful Unix just below its surface, OS X provides functionality that OS 9 and its predecessors can't touch.

But in reworking Mac OS from the ground up, Apple turned the way you interact with your operating system inside out. The user interface is now a very different—some might say frightening—thing.

Fortunately, there are ways to make OS X look, feel, and act more like the Mac OS you've been using since the days when Reagan was in the White House and most things cost, well, less than they do today.

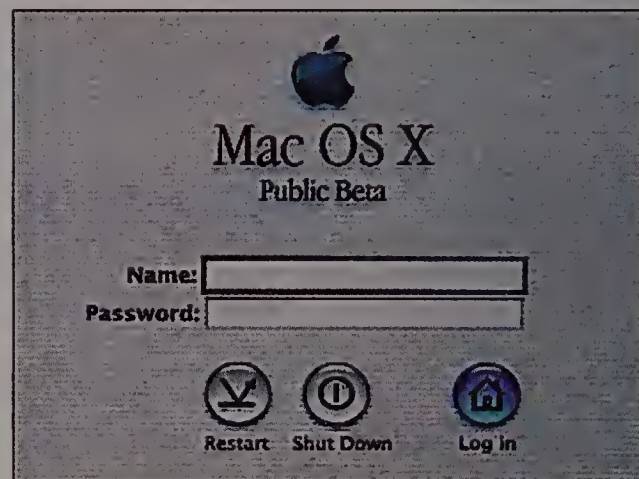
We'll show you how to make OS X a bit more familiar by automating the log-in process, changing the look of Finder views, and more. **m**

Armed with a bottle of Extra Strength Tylenol, Lab Analyst GIL LOYOLA spends his days learning the intricacies of OS X. Associate Editor JONATHAN SEFF is still too scared to install the OS X beta on his computer.

# 1

**Automate the Log-in Process** OS X requires you to log in each time you boot up your computer. But just as you save your passwords for e-mail programs, you can automate the log-in process as well.

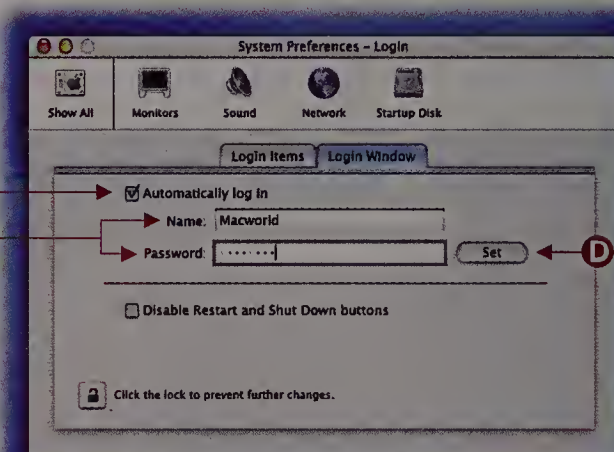
**A**



When starting up OS X, you're confronted with the new Login screen **A**. Users of OS 9's Multiple Logins feature may be used to something like this, but if you're the only one who uses your Mac, this added security measure can be more trouble than it's worth.

**B**

**C**



Choose System Preferences from the Desktop menu. Click on the Login panel, and choose the Login Window tab. From there, select the Automatically Log In option **B** and enter your name and password **C**, just as you would when logging in to OS X. Finally, be sure to click on the Set button **D**; if you don't, your information will not be saved. Now you won't be prompted to log in every time you start your Mac.

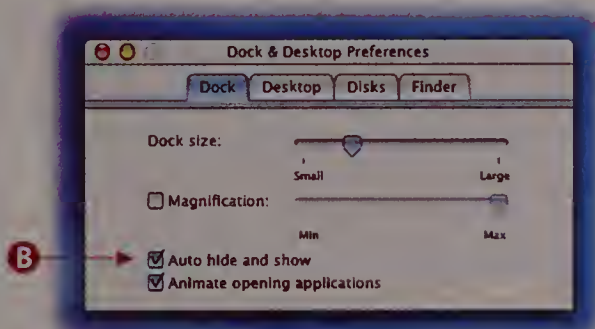


# 2

**Hide the Dock** The new Dock feature in OS X is a convenient way to see what applications are running and on easy place to store oft-used (or minimized) files. But you might not want it around—for a number of reasons. In addition to having an unfamiliar look, the Dock slows down scrolling in Classic applications.



OS X's Dock **A** is similar to Windows' Taskbar. It shows open programs and holds items such as documents and sound files. If you don't like it, you can hide it.



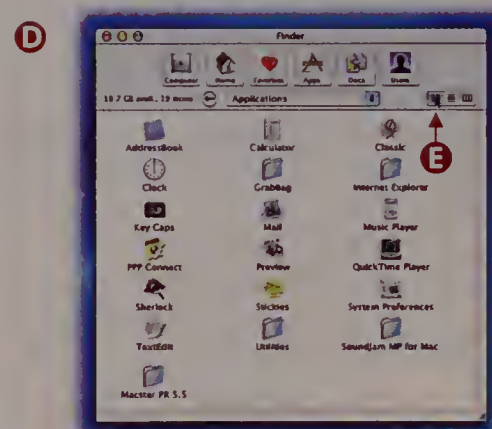
Select Dock & Desktop Preferences from the Desktop menu, and choose the Dock tab. Next, select the Auto Hide And Show option **B**. Now when you move your mouse pointer over the bottom of your desktop, the Dock will pop up temporarily (you'll need it for dragging items to the Trash, which is at the right end of the Dock) but will disappear when the cursor moves away.

# 3

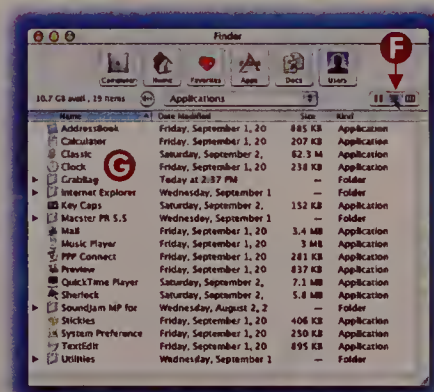
**Change the View Setting** OS X's Finder has several viewing options, and the newest is a stranger to most Mac users. Its hierarchical interface is vaguely similar to that of Windows. Luckily, Apple responded to early complaints and added two more familiar options.



In Apple's newest Finder view, clicking on your hard drive's icon **A** displays a vertical list of its contents in a box on its right **B**; clicking on a folder in that list opens another box further right **C**; and so on. This makes your location easy to figure out at a glance.



If you prefer a more conventional look **D**, select the Icon view **E** from the Finder toolbar.



You can also choose the List view **F**, to see folders and programs **G** as they would appear in OS 9's List view. (In case you were wondering, OS 9's Button view is gone for good.)

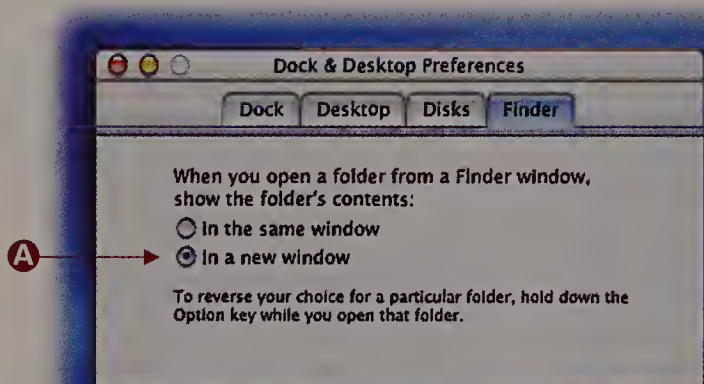
continues

# 4

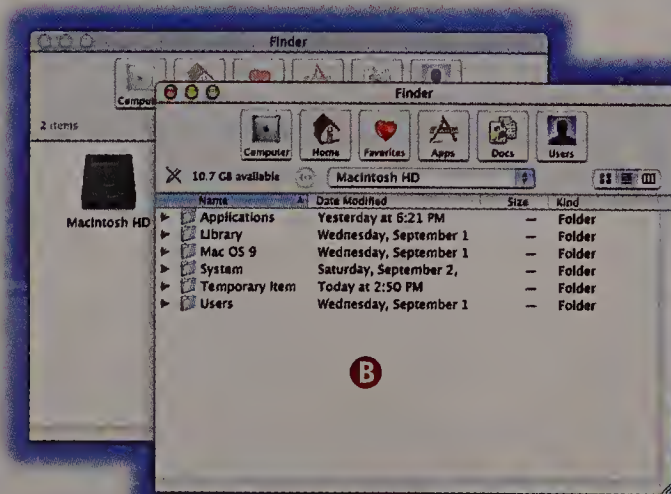
**Open a New Window** In Mac OS X's Finder, windows function differently: only one window's contents are visible at a time. Double-clicking on a folder, for example, replaces your window's contents with those of the folder you just opened. But there's a quick fix.

Viewing the contents of only one folder at a time is something you can get used to. But this amnesiac feature can make it difficult to remember where you came from and to navigate around your computer.

In the Dock & Desktop Preferences window, click on the Finder tab. Select the In A New Window radio button **A**.



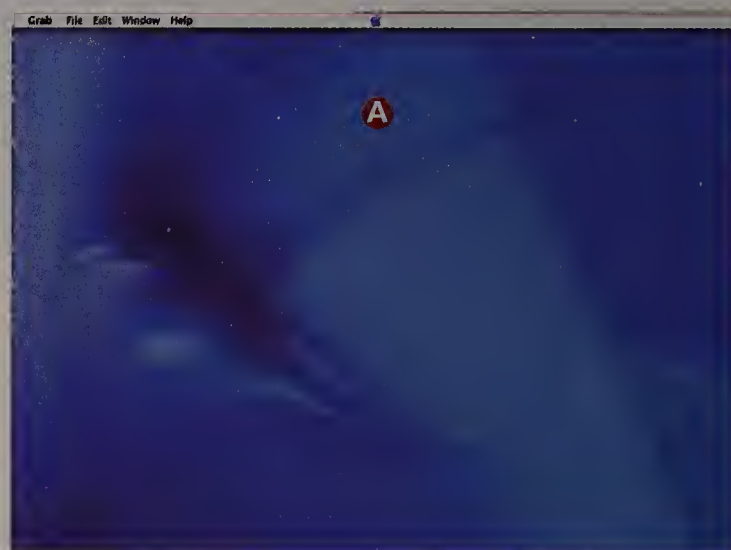
Voilà! Windows will revert to their familiar stacking behavior **B**. You can even reverse the settings for individual folders by holding down the option key while opening a window.



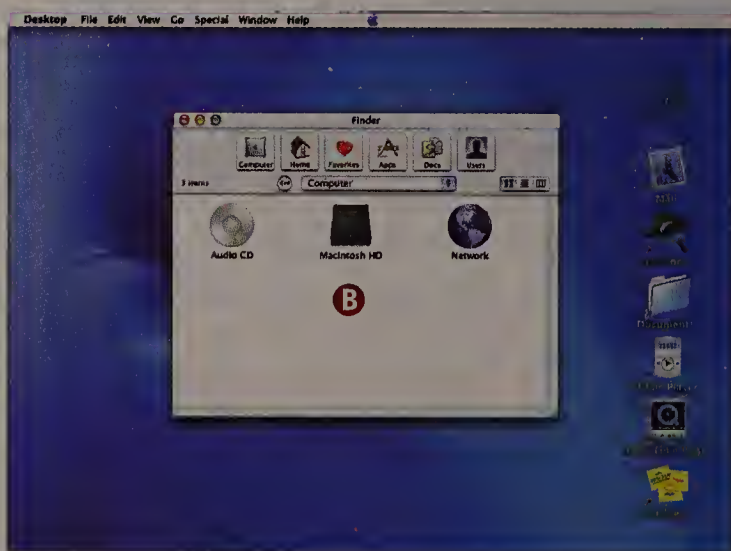
# 5

**Drag Icons to the Desktop** One thing you'll notice about the OS X desktop is the absence of icons. Except for the Dock, the desktop is completely empty. But you can make your desktop look and act like cozy ol' OS 9.

Over the years, we've gotten used to dropping files and folders (or their aliases) onto the desktop. But in OS X, not even the hard drive is accessible from the desktop **A** on start-up.



To put an alias of your hard drive on the desktop (where it belongs!), simply drag and drop it from the Finder **B**. To get an alias of a folder or program onto the desktop, drag the icon while holding down the  $\mathbb{A}$  and option keys. Unfortunately, you can't bring the Trash icon to the desktop—Trash is accessible only through the Dock.





Buy 2  
Get \$10

back by mail when you buy any  
two games from a hit list of  
15 MacSoft titles.  
Complete details  
on page  
60



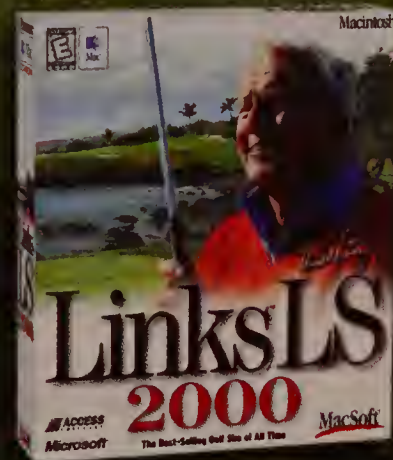
Real courses. Real physics. Real ball control.



Fuzzy Zoeller joins Arnold Palmer  
and three other new golfers



Featuring St Andrews Old Course,  
plus five new courses



You'll feel like Links LS 2000 is the perfect reflection of your real golf game. And with six new courses (including the spectacular St Andrews Old Course), 35 modes-of-play, and "constructive criticism" from cutup golf announcer David Feherty, you've got plenty of opportunity to improve. Watch out for the rough!



ACCESS  
SOFTWARE

Microsoft



MacSoft®

[www.wizardworks.com/macsoft](http://www.wizardworks.com/macsoft)

© 1999 Microsoft Corporation. All rights reserved. Microsoft and Links are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Published and distributed by Infogrames, Inc., under its MacSoft label. All other trademarks are the property of their respective owners.

Circle 30 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



# "Design with Passion."

— Hillman Curtis, Principal, [hillmancurtis.com,inc](http://hillmancurtis.com,inc)



THE INTUOS BY **WACOM**

"If you want to do great work, you have to be able to generate great ideas and use the right tools."

For Hillman Curtis, one of the right tools is his Intuos Special Edition graphic tablet system. It's the quickest way for any designer— web, print or video— to realize their design vision. The pressure sensitive Intuos Pen gives him the control he needs in applications such as Flash, Photoshop or Painter. It's ergonomic as well — which is great, since even Hillman had to burn a little midnight oil in order to receive the One Show Gold Pencil.

CALL 800.922.2584, OR VISIT [WWW.WACOM.COM/PASSION](http://WWW.WACOM.COM/PASSION) FOR A CHANCE TO WIN THE *FLASH WEB DESIGN* BOOK BY HILLMAN CURTIS.  
©2000 WACOM TECHNOLOGY CORPORATION. WACOM AND INTUOS ARE REGISTERED TRADEMARKS OF WACOM COMPANY LTD. ALL RIGHTS RESERVED. INCLUDES COREL PAINTER CLASSIC.



# Mac 911



Well, I admit it. I was starting to worry. Three *Mac 911* columns under my belt already, and not once had the word *ResEdit* appeared among my allotment of vowels and consonants. It is therefore with a huge

*whoosh* of relief that I include the term *ResEdit* not once, not twice, but a dozen times in this very column. In addition to demonstrating how you can

use ResEdit to reveal the unseen, I offer advice on finding system software for Macs of yesteryear and insight into the do's and don'ts of formatting e-mail.

## Old Soldiers Never Die

Before the main course, let's whet our appetites with the curious case of Dave Robbin of Hutchinson, Minnesota, whose nostalgic notions caused him to grab one of the 512K Macs his school was unloading. Pleased as Dave was with his new-old Mac, he was stymied by the fact that this ancient beast inexplicably came with an 800K system floppy disk—when the 512K Mac accepts only 400K floppies. Dave turned to *Mac 911* to learn where he might find the system software he needs in a form he can use.

While Apple provides system software as old as version 6.0.3 at [ftp://ftp.info.apple.com/Apple\\_Support\\_Area/Apple\\_Software\\_Updates/English-North\\_American/Macintosh/System/Older\\_System](http://ftp.info.apple.com/Apple_Support_Area/Apple_Software_Updates/English-North_American/Macintosh/System/Older_System), 6.0.3 is far too modern for a rickety 512K. But fear not, Dave. Just point your browser to the Mac 512 User Group at [www.mac512.com](http://www.mac512.com). This site, maintained by one G. Younk, focuses on antique Mac models and provides old versions of the Mac OS either via download or on floppy disks (yup, even 400K ones).

## Fancy (but Occasionally Forbidden) Formatting

We'll now cleanse our palates with the story of Joe, a visitor to the Mac 911 Forum, who wonders under what circumstances one should format e-mail as HTML rather than plain text.

Here's the dope, Joe: HTML formatting lets you style your e-mail messages—complete with color, bulleted lists, and text alignment. However, not all e-mail clients handle HTML well—your words may appear as unformatted text or even as attachments, and messages that contain colored backgrounds and text tend to open slowly. Those who maintain mailing lists (such as the Mac Managers List) so abhor HTML that any message sent to these lists with such formatting promptly bounces back to the sender.

That said, I've had no trouble with HTML formatting. If, like me, Joe resists the most-blatant frippery—colored elements in particular—and avoids obvious bad moves such as sending HTML text to mailing lists, he should feel free to format as he chooses.

## Retaining Software Updates with ResEdit

Jeff Seal of Salt Lake City asks how he might keep a copy of the files that Mac OS 9's Software Update control panel retrieves from Apple's site. The Software Update control panel is so efficient that it not only down-  
*continues*

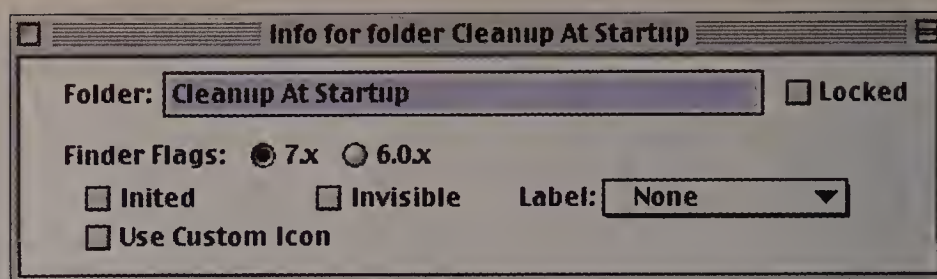
loads and installs updates but also cleans up after itself by deleting the installer files afterward. Jeff would like to retain these installers and transfer them from his office Mac—where a T1 line makes downloading huge files a stroll in the park—to his home Mac, where downloading the same updates via his 56K modem becomes a trial. Although Apple makes it difficult to glom onto these installers, it's not impossible if you have a copy of ResEdit and know how and when to force-quit an application.

Begin by downloading a copy of ResEdit from the Apple Software Updates page (<http://asu.info.apple.com>). Launch ResEdit, and when an Open dialog box appears, click on Cancel. Now select Get File/Folder Info from ResEdit's File menu, navigate to the root level of your start-up drive, locate the Cleanup At Startup folder, and click on the Get Info button. The dialog box that appears contains an option labeled Invisible (see "Making an Appearance"). Deselect this option, close the window, save your changes when prompted, and quit ResEdit.

When you next explore your start-up drive, you'll see the now-visible Cleanup At Startup folder, where the Software Update control panel stores update files.

Now run Software Update and download the files you need. Once the files have downloaded and installed, Software Update displays a dialog box with one option: Restart. If you wish to retain the installers, you must circumvent this dialog box by pressing shift-⌘-option-esc to force-quit the Software Update control panel.

Answer yes in the dialog box that asks if you really want to force-quit Software Update; with any luck, the Finder will eventually appear. (For a frightening list of what can happen if your luck runs out, see the next paragraph.) Open the Cleanup At Startup folder, and you'll find oddly numbered folders that contain the installers for the updates Software Update just downloaded. Copy them to some variety of removable disk



**Making an Appearance** To reveal invisible items, such as the Cleanup At Startup folder, deselect the Invisible option in this ResEdit window.

(a Zip, for example), truck the disk home, and run the installers on your home Mac.

I'd be remiss if I didn't mention the following:

- Force-quitting an application can leave your Mac in an unstable state. There's a slight chance that performing this trick will corrupt some item on your hard drive. It's far safer to wait until Apple posts stand-alone versions of updates online, usually a week or two after they first appear in Software Update.
- ResEdit is a powerful tool that, if used carelessly, can seriously mess up your Mac. If you aren't sure what you're doing—and don't have a complete backup of your hard drive—stay away from ResEdit.
- If the installers won't run properly, download Tome-Viewer from VersionTracker ([www.versiontracker.com](http://www.versiontracker.com)) and extract the update files from the Cleanup At Startup folder.

## Update

Contrary to assertions in my September column, James Walker's fine Acrobat shareware extension PrintToPDF allows you to create PDF files of sheet music. While PrintToPDF can't embed fonts, it can render selected fonts as bitmaps—at 288 dpi—instead of as text.

Several readers noted that, in October's column, I left out a solution for changing the default keyboard shortcut—⌘-tab—to switch between applications. Go to Apple's Help Center (under the desktop's Help menu), search for *application switcher*, click on the Switching Between Open Programs link, select Help Me Modify The Keyboard Shortcuts, and follow the on-screen instructions. **m**

Contributing Editor CHRISTOPHER BREEN offers Mac tips and tricks each business day via the Daily Tips and iTips newsletters. Visit <http://lists.macworld.com> to subscribe.

## Tip of the Month

If you want to create a group mailing list in your e-mail client, you don't need to have the names in your address book. I selected and copied 52 names in an AppleWorks document and then pasted the names into a new group. It worked perfectly.

**Janet Mobley**  
Santa Rosa, California

Share tips and discuss Mac problems with other Mac users in the Mac 911 Forum ([www.macworld.com/subject/mac911](http://www.macworld.com/subject/mac911)). Also send tips by e-mail to [mac911@macworld.com](mailto:mac911@macworld.com). We pay \$50 for tips selected for publication in *Macworld*. All published submissions become the sole property of *Macworld*.

Shareware and freeware mentioned in *Mac 911* is available from the Macworld Online software library ([www.macdownload.com](http://www.macdownload.com)).



# Wireless Data Fix?

Strung out because you can't get to your data?

Don't sweat it—Merlin can help.

Merlin provides wireless data access

through your Windows®

laptop or handheld

computer. It allows you

to wirelessly send and

receive e-mail,

visit the Internet

and connect to

corporate servers.

That's right, no

wires—you can be

mobile and get all of

the data you need.

And, it's the most

affordable wide-area wireless

PC card modem on the market.

Get Merlin and get connected.



Merlin™ Wireless  
PC Card Modem

  
**NOVATEL WIRELESS**

1-888-888-9231

[www.novatelwireless.com/ad](http://www.novatelwireless.com/ad)

Circle 75 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



Buy 2  
Get \$10

back by mail when you  
two games from a h  
15 MacSoft  
Complete

Community Chest

ADVANCE TO GO  
(COLLECT A COPY  
OF MONOPOLY® FOR MAC)



©1936, 1996 Hasbro, Inc.



Create your own board • Play 10 different city versions  
Up to 6 human players, terrific AI and Internet play  
Original music scores and realistic sound effects • Vivid 3-D animation



©2000 Hasbro, Inc. ©2000 Hasbro Interactive, Inc. The Monopoly trademark and its logo and the Mr. Monopoly name and character are trademarks of Hasbro, Inc. for its property trading game and game equipment. Published and distributed by Infogrames, Inc. under its MacSoft label. All trademarks and registered trademarks are the property of their respective owners.

MacSoft®

[www.wizardworks.com/macsoft](http://www.wizardworks.com/macsoft)

Circle 30 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



# Adobe GoLive 5

Lack of Standards Compliance Tempers

Otherwise Powerful Web Tool



Once an application reaches version 5, you expect it to be strong and capable, with no rough edges. That's just what you get with Adobe GoLive 5. The qualities that have attracted legions of Web designers, such as a powerful design environment and excellent site-management features, have been strengthened; integration with Adobe's other world-class tools, including Photoshop, helps GoLive handle almost any Web chore with aplomb. Yet the devil is in the details, and some troubling particulars with this upgrade may cause you to pause when reaching for your checkbook.

## Helping Hands

As expected, GoLive 5 offers a slew of new features. Particularly welcome is 360Code, a tool that lets you create

code in GoLive, tweak it in another editor, and return it to GoLive without having the program rewrite your source code. Also welcome is the ability to view the layout and the page's source code simultaneously in separate windows.

It's clear that some of Adobe GoLive's new features, such as 360Code, are intended to help the program play catch-up with Macromedia Dreamweaver 3 (*Reviews*, April 2000). In other cases, GoLive has taken a good Dreamweaver feature and made it much better. For example, Dreamweaver introduced the concept of putting an image layer in the background of a document to use as a guide; Adobe takes that idea a step further by letting you

*continues*

## ADOBE GOLIVE 5

**Rating:** ★★★★★

**Pros:** Improved code and graphics handling, table tools, and site management; WebDAV version control.

**Cons:** Doesn't produce standards-compliant code; mediocre documentation; limited extensibility.

**List price:** \$299

**Company:** Adobe, 800/833-6687, [www.adobe.com](http://www.adobe.com)

## MACWORLD'S BUYING ADVICE:

GoLive is a remarkably powerful program, one that hasn't sacrificed its ease of use as it has become more capable. Version 5's 360Code tool, "smart objects," WebDAV support, and site-management features bring a new level of convenience to Web development teams. Whether you'll find it to be a worthwhile upgrade depends on your extensibility requirements and your tolerance for its lack of standards compliance.



cut out parts of that tracing image and turn them into floating boxes (dynamic HTML elements) that become part of your Web page.

GoLive now has Photoshop's Save For Web image optimizer built in, so you can prepare your graphics for the Web without leaving the program. You can now import native Photoshop files and make each Photoshop layer a GoLive floating box; you can even apply different optimization settings for each layer as it's being imported. GoLive also lets you take files from three of Adobe's other products (Photoshop, LiveMotion, and Illustrator 9) and place them as "smart objects."

Double-clicking on a smart object opens the file in the source application, and changes in the source cause the copy of the file in the Web page to be updated. If you resize a smart object, it's automatically reoptimized—a big time-saver.

The new Table palette is another time-saver. You select cells, rows, or columns by clicking on a miniature map of the table in the palette. You can apply color and text styles to the map, and you can save your own styles for reuse.

### Not Standard Enough

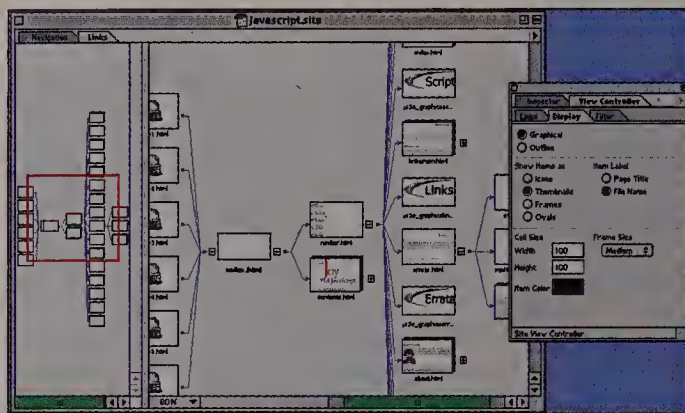
There's no excuse for a professional Web production tool not to create standards-compliant HTML. Compliance makes pages display predictably across computing platforms and makes them more readily accessible by people with disabilities. Yet pages created with GoLive 5 don't pass the HTML 4.01 validation test at <http://validator.w3.org>.

Can you make GoLive produce compliant pages? Sure—you just have to manually create a page that passes the validation test, save it as stationery, and tell GoLive to use the stationery for each new file. And

make sure you don't use features like GoLive's layout grids, which use proprietary code to work their magic.

### Big Guns for Big Jobs

With big sites and big development teams becoming the norm, the requirements for site management keep ratcheting up, and GoLive's



**View from a Height** One of GoLive 5's many site-management improvements is the addition of multiple panes to the site view window.

answer is support for the industry-standard WebDAV (Web Distributed Authoring and Versioning). More robust than Dreamweaver's version control, WebDAV lets team members check pages in and out of the WebDAV server and stage sites before uploading them to production servers.

The program's site-design tools are also improved. You can diagram a whole site before you build a single page, as well as design new sections for existing sites, by creating placeholders that you later fill with content. GoLive 5 lets you work on a new design without disturbing your existing site, then move the new pages into production when they're ready.

GoLive's Dynamic Link feature lets you create database-backed content using an ODBC-compliant database server or Microsoft's Commerce Server ASP. You connect GoLive to one or more dynamic content servers, use GoLive's Dynamic Link palette to build a sample SQL query, and then bind database fields to table or form fields. You can preview the final output using GoLive's Show In Browser

feature, and interact with a Web page the way an end user would. Web programmers will find the live-testing feature useful but will be frustrated by the inability to edit and test server-side scripts from within the development environment. GoLive also lacks built-in support for MySQL, mSQL, and Postgres, the three open-source databases popular with Web developers.

One of Dreamweaver's standout features is its support for customization and extensibility via JavaScript, XML, and C or C++. With these programming languages, you can add to or modify any Dreamweaver menu, object, dialog box, or palette. Nonprogrammers

can easily customize Dreamweaver by using its History feature to record a series of actions and turn them into new commands. In terms of user customization, GoLive still lags behind Dreamweaver. You can't customize menus, menu items, or keyboard shortcuts, and you can't rearrange items on the program's tool palettes. There's also no equivalent to Dreamweaver's end-user ability to save steps as a command. And GoLive can't match Dreamweaver for extensibility: programmers can add custom menus or other objects but can't change the built-in interface.

Previous versions of GoLive were rightly criticized for their bloated, hard-to-follow documentation. Version 5's manual is shorter but hardly an improvement. If you're new to GoLive, plan on buying a third-party book to help you get the most out of this complex and powerful program.—TOM NEGRINO

Mel Beckman and Steven Shmerler provided additional research.



DESIGNED FOR THE WAY YOU WORK

*I'd rather create clocks than invoices.*

***If I wanted to keep books all day, I'd have been an accountant.***



**Roy Fox, Founder, Fox Clocks, Hollis, Maine**  
**One of 450,000 MYOB software users**

**MYOB<sup>®</sup>**

**Small Business.  
Smart Solutions.<sup>SM</sup>**

800.322.MYOB  
[myob.com/us](http://myob.com/us)

MYOB software is the simplest, most powerful, most complete solution for managing my company on the Mac, from the day to day to the bottom line.

***Antique frames. Quartz movements. That's my business.  
MYOB software works for me.***



# Caught in the middle between your Mac® and a PC. And loving it.



## Introducing the versatile and stunning VA800 Flat Panel Monitor from ViewSonic®

With a big, beautiful 17.4" viewable screen, the VA800 can be connected simultaneously to two analog inputs giving you the freedom and flexibility to easily toggle between your Mac and a PC. Simply push a button to switch between computers or just let the monitor automatically detect which computer is on.

**SuperClear** 

## Delivers The Ultimate Picture Quality.

Quite simply, the VA800 will show you visuals like you've never seen. With SuperClear MVA™ screen technology for clearer, brighter images and our ultra-fast 3X refresh speed for crisper motion, the VA800 is changing the way people view computers. The ergonomic, space-saving design allows you to tilt, swivel, and pivot to portrait for complete viewing of web pages.

## The ViewSonic Advantage.

As with all ViewSonic monitors, the VA800 comes with a three-year limited warranty and 24/7 technical support. It's no wonder ViewSonic has won over 600 industry awards and offers the #1 best selling monitors and flat panel displays in the USA.\* For more information, click on [www.ViewSonic.com/va800](http://www.ViewSonic.com/va800). Or visit your local retailer today. The VA800 from ViewSonic. Put one in the middle of your computers.

(800) 888-8583 • Internet: [www.ViewSonic.com](http://www.ViewSonic.com) • Specifications subject to change without notice. • Copyright © ViewSonic Corporation 2000  
Corporate names and trademarks stated herein are the property of their respective companies. \*ViewSonic ranks as United States' #1 best selling flat panel display by Display Search (Q2 '00) and the leading non-captive monitor brand by Stanford Resources, Inc. (Monitrak Q1 '00). All rights reserved.



Not available  
at all locations.



On-line only.

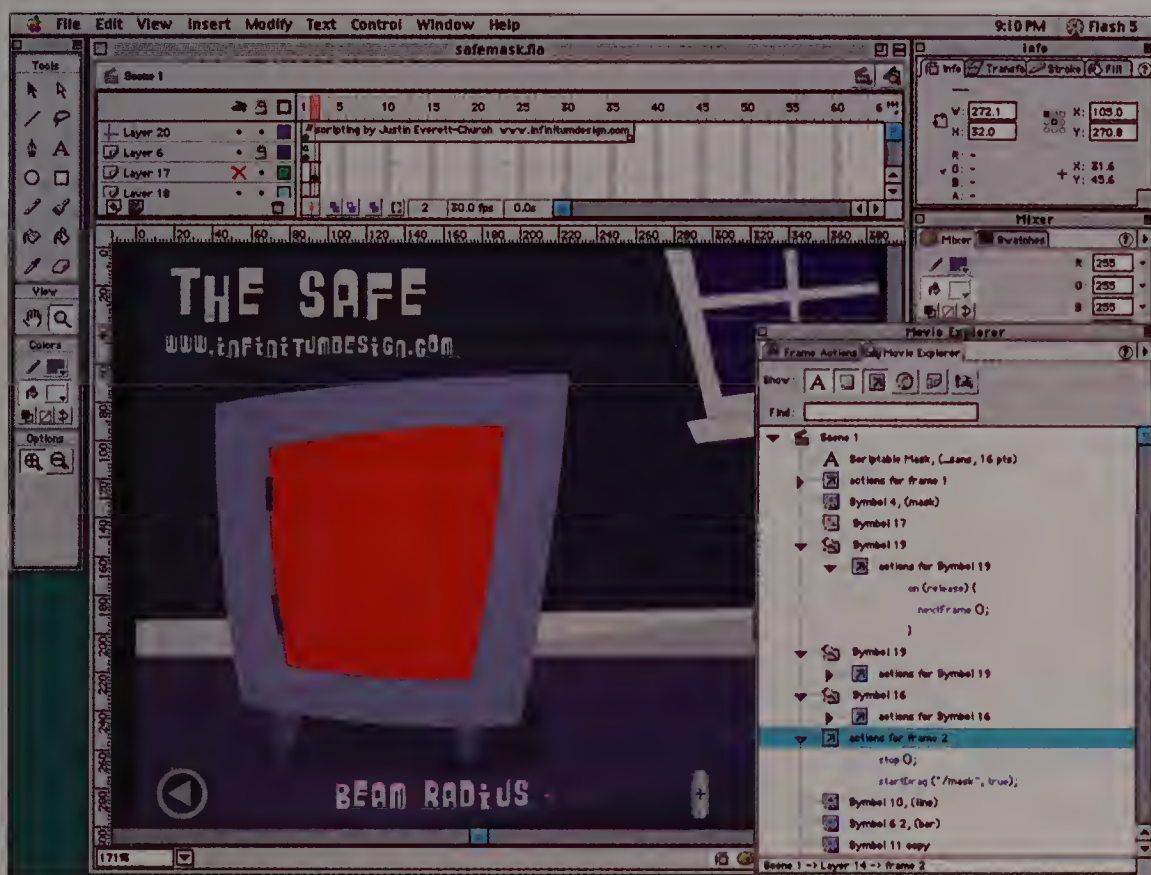
The Visual Technology™ Company





# Flash 5

## Web Animation and Authoring Tool Matures but Still Lacks Accessibility



**Exploring Flash** Flash 5's Movie Explorer feature (lower right) offers a big-picture view of a movie's structure and assets. Also visible: Flash 5's new positioning guides and tool panels.

These days, it's hard to surf the Web without being flashed. Macromedia Flash-based animations—and even entire sites—are all the rage, thanks to Flash's bandwidth-friendly design and Web users' ability to view Flash content without downloading additional software.

Since its 1996 release, Flash has evolved from a simple animation format into a platform for developing entire Web sites. Flash 5 continues the trend. From its revamped interface to its enhanced authoring and workflow features, Flash 5 is the most impressive release yet.

However, Flash movies that use some of the program's most powerful features can be played only with

Flash Player 5—the latest version of the Flash plug-in and *not* the version most Web users have.

That doesn't mean Flash designers should put off upgrading. Flash 5 still exports to the Flash 4 format, and there are enough new productivity-boosting features in Flash 5 to make it an immediate must-have for Web motion-graphics designers.

### A Flashier Interface

Flash 4's user interface was rough around the edges (*Reviews*, October 1999), but version 5's is much better. Macromedia reorganized the program's menus; spruced up its tool panels; and most significant, improved the interface consistency between *continues*

### FLASH 5

**Rating:** ★★★★★

**Pros:** Superb interface and workflow improvements; powerful programming capabilities.

**Cons:** Using some features requires new player; no accessibility features.

**List price:** \$399; Flash 5 Free-Hand 9 Studio, \$599

**Company:** Macromedia, 800/326-2128, [www.macromedia.com](http://www.macromedia.com)

### MACWORLD'S BUYING ADVICE:

Flash 5's workflow enhancements accurately reflect the way designers use Flash, and its ActionScript programming improvements open up new possibilities for advanced interfaces, games, and online experiences. Until Flash Player 5's installed base grows, designers will have to use caution when employing some features, but they can benefit right now from its productivity aids and streamlined interface. Flash 5 is a superb upgrade.



Flash and its cousins Dreamweaver, Fireworks, and FreeHand.

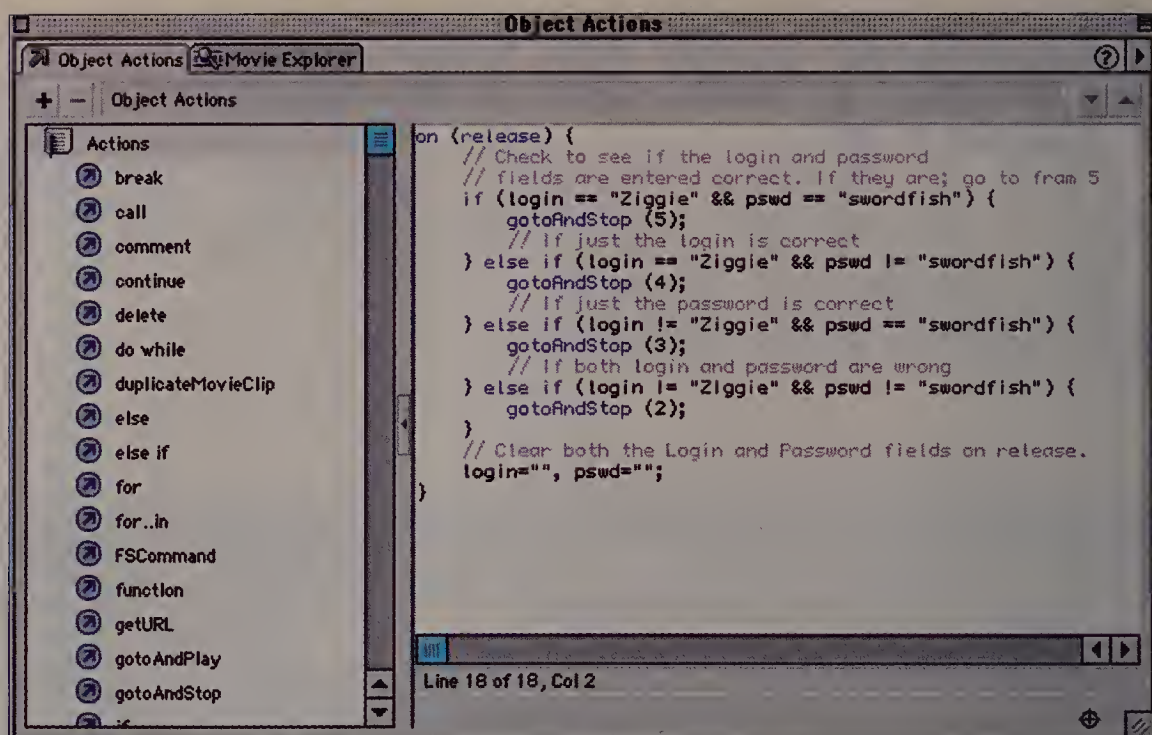
Flash's relatives are replete with customizing features, and Flash 5 catches up here, too. You can't reorganize Flash 5's menus as you can Dreamweaver's, but you can customize keyboard shortcuts. The program even offers a variety of built-in shortcut sets that match those of other applications, including Adobe Photoshop and Illustrator.

Speaking of Illustrator, designers will welcome Flash 5's new pen tool, which allows users to draw Illustrator- and FreeHand-style Bézier curves. Flash 5 retains version 4's brush and pencil tools, which work in the same unique (and often bizarre) way.

Many Flash designers have been using FreeHand for its superior illustration tools, taking advantage of FreeHand's ability to export files to the Flash format. Flash 5's ability to directly import FreeHand 9 documents eliminates this export step. At the same time, though, Flash 5 lacks the many file-optimization goodies that FreeHand's Flash-export feature provides. Flash designers may have to tweak their design processes, optimizing FreeHand-drawn elements after importing them into Flash.

### Libraries and Explorers

A complex Flash site can comprise multiple Flash movies, which may use the same assets—identical buttons, graphics, and sounds, for example. With Flash 5, designers can create shared libraries whose assets are available to all the Flash movies in the site. Some designers I talked to say this could halve the size (and download time) of complex Flash sites. Alas, a project using shared libraries needs Flash Player 5, so designers eager to reach the largest audience will have to forgo their use until the new player's popularity reaches critical mass.



**ActionScript** With Flash 5's new scripting environment, you can create scripts by choosing options from the Object Actions panel or by simply pecking them in yourself.

Flash 5's new Movie Explorer feature, on the other hand, provides immediate productivity benefits. Movie Explorer depicts a project's structure using a hierarchical, outline-style view. You can quickly scan for assets, examine scripts, and search for items.

### ActionScript and Beyond

Flash 4's ActionScript programming language helped establish Flash as a platform for developing advanced interactivity. But Flash 4 scripting lacked much of the power of a "real" programming language, and often hacks and workarounds were needed to accomplish complex tasks.

In Flash 5, ActionScript has grown up. Macromedia has reworked the language, using syntax and control structures similar to those of the ubiquitous JavaScript.

ActionScript newbies can still create code by choosing from pop-up menus and option lists, but advanced coders can also peck scripts directly into Flash 5's Actions panel or import them from text editors such as BBEdit. A new Debugger window lets you monitor the contents of variables and properties. And ActionScript now supports XML-based data transfer to and from a server. This lets a Flash movie

communicate with a server to receive content updates and send back information. (XML is another feature that requires the Flash 5 player.)

Other Flash 5 improvements will help in creating dynamic projects. Text boxes can interpret several HTML 1.0 tags, including hyperlinks and **font** tags, and Flash movies can load HTML from a remote server at runtime. Therefore, a Flash movie can grab and display HTML-based content as necessary, providing up-to-the-minute updates. Flash 5 is also more tightly integrated with Macromedia Generator, a five-figure add-on that generates Flash movies on-the-fly.

### Missing the Flash

Even with this revision, Flash 5 lacks features that would enable blind and other disabled users to navigate Flash interfaces. Macromedia says it's working to address accessibility issues. Until it does, designers who want to build Flash-based sites must decide whether it's worth leaving out a small but growing population of Web users.

This doesn't diminish Flash 5's many enhancements. But now that Flash has matured into a platform for site development, the time to become inclusive has arrived.—JIM HEID



**Ultra160 SCSI.  
A better way to  
use your time.**

How frustrating. Just when you're on a creative roll, file saving and scratch disk processing run smack into your train of thought. Not even G4s solve that. But Adaptec has.

Adaptec's PowerDomain® 29160N Ultra160 SCSI card is

three times faster than FireWire™. A hundred times faster than USB. And, backward compatibility makes legacy drives and

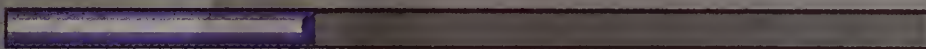
peripherals snap to attention.

Adaptec offers a complete line of SCSI cards from our flagship dual channel Ultra160 PowerDomain 39160 to portable SCSI for your PowerBook®. So instead of worrying about how to get everything done on time, find out how to improve your Mac's performance at [www.adaptec.com/mac](http://www.adaptec.com/mac). And be sure to include Adaptec SCSI with your next Macintosh® purchase.



Progress

Writing TIFF Format



Cancel

**SITTING AROUND WITH  
EVERYTHING TO DO?**

*We move the information that moves your world.™*

**adaptec**

© 1999 Adaptec, Inc. All rights reserved. Adaptec, the Adaptec logo, the Adaptec tagline and PowerDomain are trademarks of Adaptec, Inc., which may be registered in some jurisdictions. Macintosh and PowerBook are registered trademarks and FireWire is a trademark of Apple Computer, Inc., used under license. All other trademarks used are owned by their respective owners.



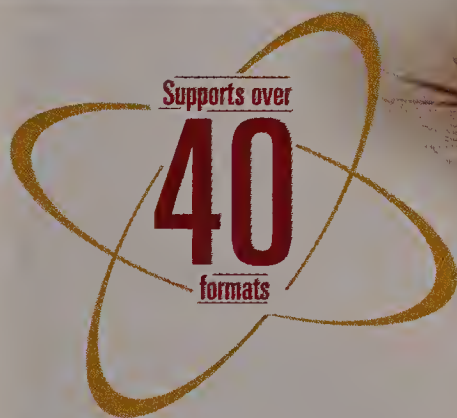
**now!**

# ACDSee

**For Mac 1.5**

TM

*The Perfect Software Solution for*  
**Digital Image Management**



**Image  
viewing  
at its very  
best**

Visit us at  
**COMDEX Las Vegas**  
November 13-17, 2000  
South Hall, Level 1 Booth L7541  
**Macworld San Francisco**  
January 9-12, 2001

Download ACDSee For Mac trial version at  
**[www.ACDSYSTEMS.com/mw](http://www.ACDSYSTEMS.com/mw)**

**ACD**  
[www.ACDSYSTEMS.com](http://www.ACDSYSTEMS.com)

PO Box 36, Saanichton, BC, V8M 2C3  
T1.800.579.5309 F1.800.819.2207

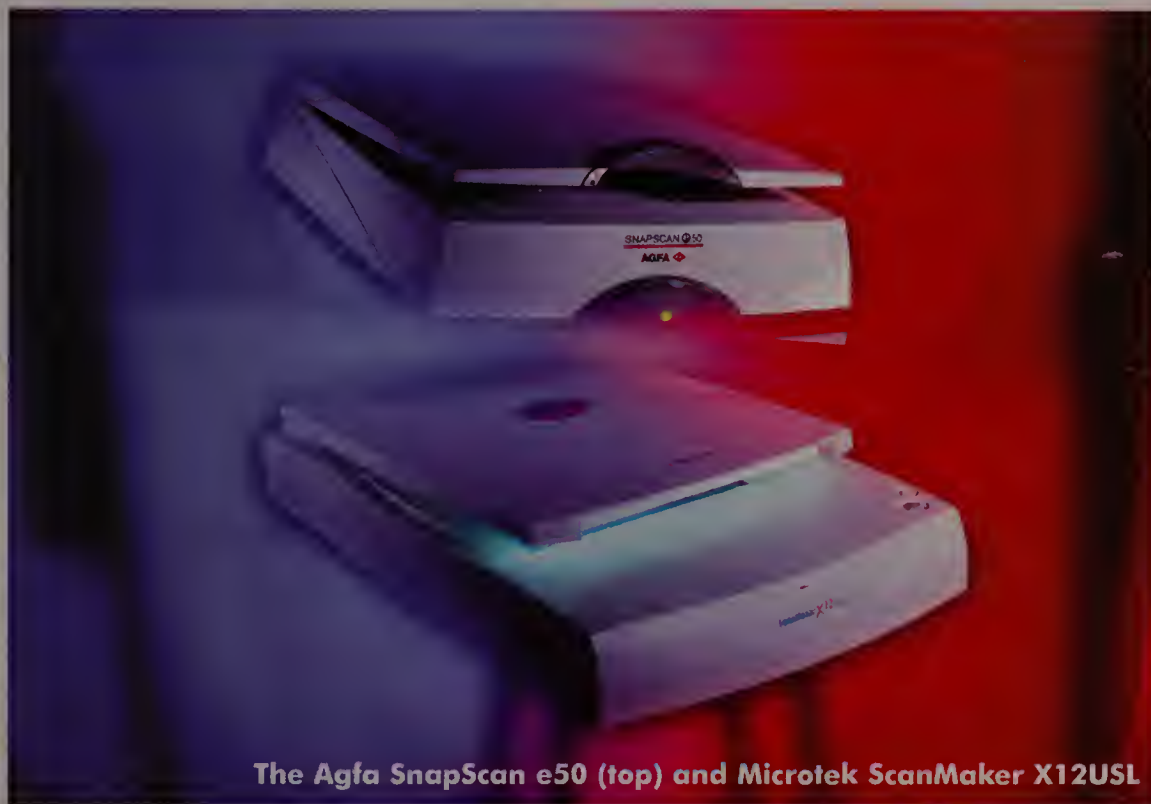




# USB Flatbed Scanners

Nine New Models Show Off

Advanced Technology



The Agfa SnapScan e50 (top) and Microtek ScanMaker X12USL

If someone had told me five years ago that I'd be really impressed by the output from a \$200 flatbed scanner, I would have been skeptical. But technology sometimes progresses much faster than we expect, and flatbed scanners are a case in point. Macworld Lab recently looked at nine flatbed scanners with prices ranging from \$169 (for the Agfa SnapScan e40) to \$349 (for the Microtek ScanMaker X12USL) and obtained impressive results across the board—at least for reflective scanning. Eight of the scanners capture 1,200 pixels per inch (ppi), while the ninth, the Epson Perfection 1640 SU, boasts the highest resolution in its class at 1,600 ppi. All have USB ports (the Canon CanoScan N1220U is the only one that draws power from USB), and the Epson Perfection 1640 SU

and the Microtek ScanMaker X12USL also offer SCSI connectivity.

## Not Just for Photos

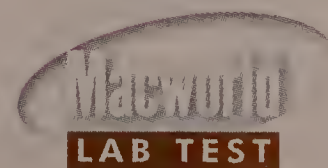
The scanners fall into two broad classes. One is intended for general office use, offering quick and convenient ways to scan to e-mail, the Web, faxes, an OCR (optical character recognition) application, or an image editor, via programmable buttons on the scanner. The Agfa SnapScan e50, the Hewlett-Packard ScanJet 5300c and 5370c, and the Microtek ScanMaker 4700 all fall into this class. The more-traditional scanners include OCR software, and all except the Umax Astra 4000U feature software control panels for automatic scanning to a variety of destinations.

Three of the scanners—the SnapScan e50, the ScanJet 5370c, and

*continues*

## MACWORLD'S BUYING ADVICE:

All the scanners we tested produce decent output, but three stand out from the pack. Both the Canon CanoScan N1220U and the Agfa SnapScan e50 deliver excellent scans with no hassles. The Canon is tiny—small enough to be portable—but draws its power from the USB port, and the Agfa offers easy integration with a variety of applications through its programmable buttons. (If you don't need these functions, opt for the cheaper e40, which delivers scans of equal quality.) Sophisticated Photoshop users who want to work with high-bit scans—when restoring old prints, for example—will find that the Microtek ScanMaker X12USL delivers very good images along with the productivity features of the less-expensive scanners.



# USB Flatbed Scanners Compared

COMPANY	PRODUCT	MOUSE RATING	LIST PRICE	CONTACT	BIT DEPTH	INTERFACE	AUTOSCAN	SIZE (IN INCHES)	PROS	CONS
Agfa	SnapScan e40	★★★★	\$169	877/330-4414, <a href="http://www.agfa.com">www.agfa.com</a>	42-bit internal/24-bit external	USB	Image/copy/e-mail/OCR	8.5 × 11.7	Excellent color and sharpness.	Scans are a little noisy.
	SnapScan e50	★★★★	\$199	877/330-4414, <a href="http://www.agfa.com">www.agfa.com</a>	42-bit internal/24-bit external	USB	Image/copy/e-mail/OCR	8.5 × 11.7	Excellent color and sharpness.	Scans are a little noisy; transparency adapter is marginally useful.
Canon	CanoScan N1220U	★★★★	\$199	800/652-2666, <a href="http://www.ccsi.canon.com">www.ccsi.canon.com</a>	42-bit internal/24-bit external	USB	Image/copy/fax	8.5 × 11.7	Excellent color; tiny footprint.	Draws power from USB.
Epson	Perfection 1640 SU	★★★★½	\$299	800/463-7766, <a href="http://www.epson.com">www.epson.com</a>	42-bit internal/24-bit external	USB/SCSI	Image/copy/e-mail/OCR	8.5 × 11.7	Very good color; high-bit output.	Higher resolution doesn't deliver more detail; misregistration between color channels.
Hewlett-Packard	ScanJet 5300c	★★★	\$249	800/722-6538, <a href="http://www.hp.com">www.hp.com</a>	36-bit internal/24-bit external	USB/parallel	Image/copy/e-mail/fax	8.5 × 11.7	Good automation features.	No ColorSync support.
	ScanJet 5370c	★★★	\$299	800/722-6538, <a href="http://www.hp.com">www.hp.com</a>	42-bit internal/24-bit external	USB/parallel	Image/copy/e-mail/fax	8.5 × 11.7	Good automation features.	No ColorSync support; transparency adapter is marginally useful.
Microtek	ScanMaker 4700	★★★★½	\$279	800/654-4160, <a href="http://www.microtekusa.com">www.microtekusa.com</a>	42-bit internal/external	USB	Image/copy/e-mail	8.5 × 11.7	Good automation features; ColorSync support; high-bit output.	Expensive; transparency adapter is marginally useful.
	ScanMaker X12USL	★★★★	\$349	800/654-4160, <a href="http://www.microtekusa.com">www.microtekusa.com</a>	42-bit internal/external	USB/SCSI-2 (25-pin)	Image/copy/e-mail	8.5 × 14.0	Very good color; ColorSync support; high-bit output.	Expensive.
Umax	Astra 4000U	★★★	\$199	800/562-0311, <a href="http://www.umax.com">www.umax.com</a>	36-bit internal/42-bit external (BET)	USB	None	8.5 × 14.0	High-bit output.	No ColorSync support; no integration with office applications.

the ScanMaker 4700—include a transparency adapter for scanning 35mm slides and negatives, but we were much less impressed by these scans. Only the SnapScan e50's transparency scans had reasonable color fidelity (the 5370c's were oversaturated with blocked shadows, and the ScanMaker 4700's had a strong green cast).

All three scanners are limited by their native resolution, which allows for an approximately 1,000-by-1,500-pixel scan from a 35mm original. This would do in a pinch for scanning film for the Web or for making small (3-by-5-inch) prints, but scanning 35mm film on these machines is clearly a marginal proposition.

Some of the scanners offer optional transparency adapters that can handle larger film formats. We didn't test these, but the limited

dynamic range of these scanners suggests that the results would be equally disappointing.

## Great Color from ColorSync

As for reflective scans, we found that all the scanners are capable of producing excellent tone and color—if you're prepared to do some work. But a few of the models we tested do so with almost no intervention, thanks to Apple's ColorSync color-matching technology (which some scanner vendors are finally beginning to support). The Hewlett-Packard and Umax scanners don't use ColorSync, so it's somewhat more difficult to get good color from them. Illustrating the power of ColorSync, the Canon scanner produced arguably the worst result when we didn't use ColorSync and one of the best results when we did.


Scanners that do use ColorSync implement it in different ways: the

Agfa scanners use ColorSync to scan to your monitor's RGB and embed your monitor profile in the scan. The Canon scanner also scans to monitor RGB but doesn't embed a profile. Scanning to monitor RGB works well if you're dealing primarily with non-color-managed applications—those that simply send the RGB numbers in the file to the screen. The Epson and Microtek scanners embed the scanner profile in the image, a better approach if you use color-managed applications that recognize embedded profiles.

The Hewlett-Packard models, which lack color-management features, produced oversaturated scans with a pronounced red cast. Hewlett-Packard's scanners are designed to produce sRGB output—the company is a major proponent of the sRGB

*continues*





SOME SEE A 10. WE SEE 10% TOO MUCH MAGENTA.

The LaCie Blue Eye<sup>™</sup>. Enabling a unique two-way connection between the LaCie electronblue<sup>™</sup> and the CPU, it's the monitor calibrator that ensures the most accurate, consistent colors and the widest dynamic range possible.

Made for ideas.

# Microsoft **Office:mac** 2001





**Rita**

I need to communicate. With my office, my boss, my customers. My kids. I need words, numbers and pictures to speak their language. And a way to use them that's fast and fun. **Microsoft Office 2001**. All the essentials. Made easy. Made for my Mac.

[microsoft.com/mac](http://microsoft.com/mac)

**Microsoft**



# Go from "No Way" to Know-How.



Remember the first time you set type on a computer? Manipulated a photo? Created an interactive Web design? Remember that "No Way" feeling before you conquered the new skill?

Your Mac gave you the power, but the inspiration, unbiased opinions, expert technique, and the answers to questions you didn't even know to ask probably came from Macworld.

So what is Macworld saying now about digital video? MP3? OSX? The know-how you need is at your fingertips monthly in Macworld. Read it and get even smarter.

# Macworld

Hey! Look What Else You Can Do.

[www.macworld.com](http://www.macworld.com)



the only Macintosh-oriented web site providing in-depth and lab-tested product views, help, and how-to advice including original, online-only content.

# www.Macworld.com

## Subjects

See everything Macworld has written on a particular topic, including Photoshop, Quark, Digital Music, iMovie, Games, Mac OS X, MS Office, and more...

## Free e-Newsletters

Sign up to receive the information you need before you have to search for it:

### Macworld's Daily Tip

Gives you a cool hint, tip or trick for your Mac (Monday-Friday).

### Macworld's iTips

Will supply you with a helpful hint designed to get you first-timers up and running with your Mac (Monday-Friday).

### Macworld MacShopper

Offers some of the best deals to be had on the latest products (Bimonthly).

### Macworld Express

Highlights the hottest news, reviews, features, demos and downloads on Macworld.com (Weekly).

### MacWEEK.com Headlines

Provides in-depth news analysis on the state of the Mac market (Monday-Friday).

### MacCentral Minute

Serves up late-breaking Mac product and industry news (Monday-Friday).

## Get Smarter!

Bookmark your favorite Macworld.com theme page:

### Get Inspired

- Let your creativity shine through - onto your Mac display.

### Get Connected

- Make the Internet work for you.

### Get Working

- Get things done fast and make the most of your Mac.

### Get Smarter

- Learn how to fix your Mac, use it more efficiently, and pick the right Mac hardware.

### Get a Life

- Don't just use your Mac for work - use it to have fun!

**Mac 911** Get immediate help when you need it from Mac 911, where readers can interact with Macworld editors and more experienced users to discuss specific technology problems.

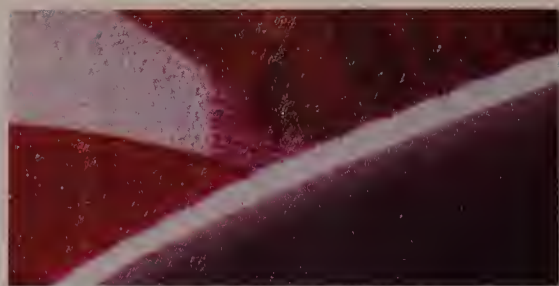
### The Macworld PriceFinder

The Macworld PriceFinder is your comprehensive resource for choosing the best Macintosh products, finding the lowest prices and buying with confidence from the vendor of your choice.

**Macworldexpo.com** Get inspired and get fast-breaking news from Macworld Expo and Conference, January 9-12, 2001 in San Francisco.

**Affiliate Program** Macworld.com's Affiliate Program allows you to earn money for every visitor and new Macworld magazine subscriber you send to Macworld.com. You can participate by adding Macworld.com and the Macworld PriceFinder links, buttons, and banners to your site.





**On the Bleeding Edge** The Agfa SnapScan e40 (left) produced the sharpest results. The Hewlett-Packard ScanJet 5300 (middle) produced a red fringe along the edge of the knife blade, because the red channel was noticeably fuzzier than the green and the blue. The Epson Perfection 1640 SU (right), despite its 1600-ppi resolution, didn't resolve any more detail than the 1200-ppi scanners and also produced a red fringe along the knife blade.

color space, which is designed to represent the "average" uncalibrated Windows monitor. Unfortunately, since Windows displays generally have a higher gamma than Mac displays, sRGB images look dark on a Mac. Therefore, the sRGB option is turned off by default in the Mac driver and a different gamma curve applied, exacerbating one of sRGB's less desirable properties—a tendency to shift blues toward purple.

The Astra 4000U's VistaScan driver supports Umax's proprietary MagicMatch, a color-management solution (based on old Kodak technology) that Umax has used for about five years. Frankly, we've never been able to get good results from MagicMatch even when we could get it to run.

If you want good color with no hassle, your best bet is one of the ColorSync-aware scanners. But if you're a more sophisticated user who plans to do substantial image editing

in a color-managed application, you may be better off with one of the scanners that delivers high-bit files to Adobe Photoshop. All the scanners capture at least 36 bits per pixel internally, and most capture 42, but only the Umax and Microtek scanners let you save all those bits on output. You get much better results editing images at the scanner's full bit depth, with less chance of posterization or color banding. However, if you can access the high-bit data only through the scanner driver, you must do major editing in the driver rather than after the fact in an image editor.

### The Sharper Image

Where sharpness is concerned, not all 1,200-ppi scanners are created equal. When we zoomed in on a fine detail of an image—the serrated edge of a knife blade—we saw that the scans from both Agfas were noticeably sharper than the others, followed by those of the Umax and

the Microtek ScanMaker X12USL. The Agfa scans were so sharp, we suspect the scanner applies some sharpening automatically; they were also noisier than the others, reinforcing that theory. The Microtek ScanMaker 4700 output was the least sharp, though it wasn't objectionably soft. Both Hewlett-Packard scanners were fuzzy in the red channel, producing some red color-fringing along the edge of the knife blade—a more difficult condition to correct than overall softness.

You might expect the 1,600-ppi Perfection 1640 SU to resolve more detail, but it doesn't—it just produces a bigger file. In fact, the Epson lagged behind the others in terms of sharpness and displayed some color-fringing along high-contrast edges (in this case, due to misregistration between the three color channels—about two pixels at 1,600 ppi).—BRUCE FRASER



**Both Ends of the Spectrum** The Canon CanoScan N1220U (left) and the Agfa SnapScan e40 (second from left) both produced excellent scans that we were able to simply convert to CMYK for print. The Umax Astra 4000U (third from left) scan was rather unsaturated, particularly in the reds (look at the red pepper). The result from the Hewlett-Packard ScanJet 5300 (right) looks similar to the Umax scan, but it actually has the opposite problem—the reds are so oversaturated that they turned orange when we converted the scan to CMYK in preparation for printing.



Buy 2  
Get \$10

back by mail when you buy any  
two games from a hit list of  
15 MacSoft titles.  
Complete details  
on page  
60

Tom Clancy's  
**RAINBOW SIX**  
**ROGUE SPEAR**

# MISSED ME?



Team Rainbow is back in full force. Rogue Spear—the sequel to Rainbow Six—immerses you even deeper in the explosive action of an elite, multinational strike force.

Rogue Spear feels so real, you'll be yelling "Tango Down!" in your sleep for weeks. And the multiplayer action is to die for. Remember, when stalking an enemy: Walk softly but strike like a thunderbolt. You only have one shot to save the world.

Eighteen new missions, full sniper support, a new replay feature and terrorists more realistic and lethal than ever!

**Includes 13 Additional Levels with Bonus MISSION PACK: URBAN OPERATIONS**



©1999 Red Storm Entertainment, Inc. All rights reserved. Red Storm Entertainment is a trademark of Jack Ryan Enterprises, Ltd. and Larry Bond. Rogue Spear is a trademark of Red Storm Entertainment, Inc. Rainbow Six is a trademark of Jack Ryan Limited Partnership, Inc. Published and distributed by Infogrames, Inc. under its MacSoft label. All other trademarks and registered trademarks are the property of their respective owners.

**MacSoft**

[www.wizardworks.com/macsoft](http://www.wizardworks.com/macsoft)

Circle 30 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



# Quicken Deluxe 2001

Useful Features Make This Year's Model  
a Solid Financial Performer

## QUICKEN DELUXE 2001

**Rating:** ★★★★★

**Pros:** Bill detection; improved online banking and integration with Quicken.com.

**Cons:** Still missing important features available in Windows versions.

**List price:** \$60

**Company:** Intuit, 800/446-8848, [www.quicken.com](http://www.quicken.com)

### MACWORLD'S BUYING ADVICE:

The purpose of a financial program is to keep you organized and prevent transactions from falling through the cracks. Better bill tracking and smoother online banking accomplish this upgrade's goal and justify the price of admission. With no flashy interface changes (as last year's release had), Quicken Deluxe 2001 delivers what most people will want: stable operation and better compatibility with online services.

Last year, Intuit shook up Quicken Deluxe for the Mac with an interface overhaul and big changes under the hood that made the program compatible with new online-banking standards, if slightly buggy (*Reviews*, December 1999). This year's version, Quicken Deluxe 2001, makes it easier to pay bills, bank online, and plan for the future. Between improvements to the program and closer integration with Quicken.com, this upgrade is worthwhile for most users, especially those who don't own last year's model.

### Bill Payment Breakthrough

The best features in the new version are improved handling of bills and proactive bill reminders. These begin when you upgrade to Quicken Deluxe 2001: in the process of converting your data file, the program flags repeated payments (or deposits) as bill candidates, suggesting that you turn them into scheduled transactions. These transactions don't have to be for the same amount every month—they just have to be regular.

Once you've turned bill candidates into scheduled transactions, you can work with them in the new Upcoming Bills And Scheduled Transactions window, choosing to either pay a bill or skip a payment (see "Bills on the Horizon"). Quicken tells you when a bill is overdue, and it's very useful (though more than a little depressing) to see a list of all

the bills you'll need to pay over the next month.

This expanded awareness of bills extends to Quicken's Billminder feature, which notifies you of impending bills when you start your Mac or launch Quicken.

Another noteworthy feature is global find and replace, which lets you search all (or a subset) of your accounts at once; previously, you had to search each account separately to find a particular transaction. The ability to replace results across all accounts makes it easier to fix errors and inconsistencies, such as a payee name that was entered in different ways over time.

### Snuggling Close to the Web

Intuit continues to integrate the desktop program with its extensive financial Web site, Quicken.com. You can now upload and store all your account balances in a secure, password-protected area on Quicken.com, and you can export your investment portfolio to the site, to take better advantage of its news and securities-analysis features.

While it's great being able to access your financial picture from anywhere that you have Web access, some people will be understandably uncomfortable with the privacy implications. Keeping your most intimate financial information on someone else's servers is a leap of faith that some are not yet ready to make.



Upcoming Bills and Scheduled Transactions				
Upcoming Bills		Scheduled Transactions		
Payee	Next Due Date	Account	Amount	
▼ Overdue Bills				
BUY Fidelity Growth & Income	9/8/00	401k reserve	-108.17	
▼ Due Bills				
▼ Upcoming Bills				
Citibank Mortgage	10/1/00	Main Checking	-1,736.44	
Pacific Bell	10/1/00	Main Checking	-25.04	
Pet Club	9/20/00	Main Checking	-32.33	
Rosewood HOA	10/1/00	Main Checking	-225.00	
▼ Deposits				
Paycheck	9/8/00	Main Checking	2,455.89	
▼ Other Scheduled Transactions				
80ATM	9/8/00	Main Checking	-80.00	
<input type="button" value="Scan for Bills..."/> <input type="button" value="Edit"/> <input type="button" value="Don't Pay"/> <input type="button" value="Pay Now"/>				

**Bills on the Horizon** Quicken Deluxe 2001 scans your finances for regular payments and lets you turn them into scheduled transactions in a snap.

But I applaud the way Intuit has pushed its financial planning and analysis tools onto Quicken.com, where they can be more readily updated and they can draw on the latest financial news. For example, the Home Affordability Planner uses the daily national average of mortgage

interest rates to give you an idea of what kind of home you can afford.

Another useful feature that takes advantage of Quicken's improved Internet integration is automatic notification about software updates. Whenever you go online with Quicken, it checks to see if a new version is avail-

able—a click launches your Web browser and brings you to the update's download page. Other improvements include a longer list of financial institutions offering online banking and bill payment; better investment-research capabilities; and a feature that gently nags you about upcoming tax payments and suggests possible deductions.

These additions are useful and welcome, but Quicken for the Mac remains Intuit's neglected child, never receiving the development time and attention lavished on Quicken for Windows. There's still no Macintosh Home & Business version, depriving Mac-based entrepreneurs of this easy-to-use payables, receivables, and invoicing solution. And Quicken Insights, a window that gives you an overview of your financial situation, still pales next to its Windows counterpart.—TOM NEGRINO

supermodel

# iMac and iMac DV

Latest Models Offer Good Performance  
at Tempting Prices

## iMAC

**Rating:** ★★★★★

**Pros:** Good performance; attractive price; worthy keyboard and mouse.

**Cons:** Skimpy software bundle.

**List price:** \$799

**Company:** Apple Computer, 800/692-7753, [www.apple.com](http://www.apple.com)

## iMAC DV

**Rating:** ★★★★★

**Pros:** Better performance; attractive price; worthy keyboard and mouse.

**Cons:** Skimpy software bundle.

**List price:** \$999

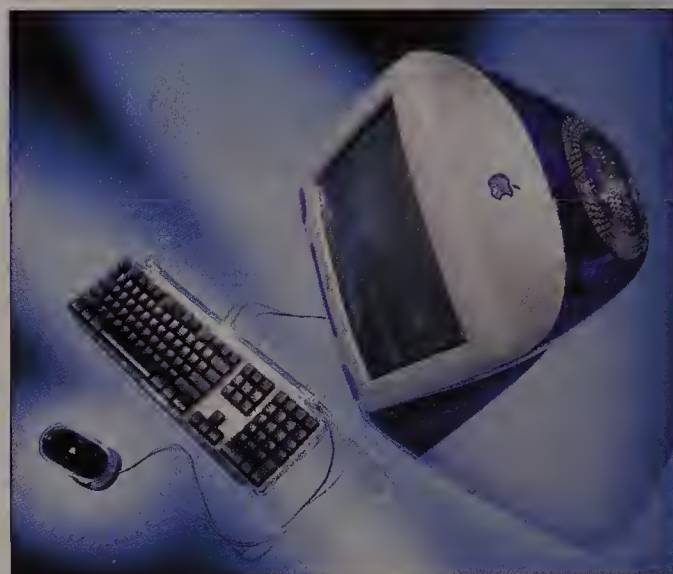
**Company:** Apple Computer, 800/692-7753, [www.apple.com](http://www.apple.com)

## MACWORLD'S BUYING ADVICE:

If you're a first-time buyer seeking a reasonably priced computer (and one that runs Mac OS), the iMac and iMac DV are for you. With prices this good, these machines will tempt even veteran Mac users.

Apple has added two enticing options to its consumer lineup—low-price iMac and iMac DV models that offer the elegant design of the original, plus a functional mouse and keyboard. First-time Mac buyers will find the \$799 iMac (available only in indigo) a terrific bargain. For those interested in editing digital video on the cheap, the \$999 iMac DV is likewise tempting.

The indigo iMac is a more vibrant blue than the blueberry and Bondi models that came before it, and the iMac DV—which also comes in indigo—adds a richer red (ruby) to Apple's color palette. But although the colors and prices are new, these iMacs are nearly identical to earlier models. Like the blueberry iMac, the new iMac bears a 350MHz processor and lacks the iMac DV's FireWire and video-out ports and AirPort capability. The



new 400MHz iMac DV differs from earlier DV models in its inclusion of a CD-ROM drive instead of a DVD-ROM player. Both iMacs ship with a much smaller collection of software than previous iMacs did.

Our lab tests revealed that the new models deliver performance similar to that of their predecessors, although the new iMac measured slower in our Speedmark tests (this may be accounted for by the differences among hard drives and ROM versions).—CHRISTOPHER BREEN

## Mo' Better Blues

Macworld  
LAB TEST

Reference system in <i>italics</i> . Best results in bold. — Longer is better. — Shorter is better.	SPEEDMARK 2.1	QUAKE III	SOUNDJAM 2.5.1
	Overall Score	Normal	MP3 Encode
Apple iMac G3/350 (2000)	97	21	4:34
Apple iMac DV G3/400 (2000)	<b>105</b>	<b>23</b>	<b>3:55</b>
Apple iMac G3/350 (1999)	100	22	4:36

Better ▶

Better ▶

◀ Better

Speedmark scores are relative to those of an iMac 350MHz (1999), which is assigned a score of 100. SoundJam results are in minutes:seconds. Quake results are in frames per second. We tested each system with Mac OS 9.0.4, 64MB of RAM, a default system disk cache, and virtual memory enabled for all tests except SoundJam encoding. We set displays to 1,024 by 768 pixels and 24-bit color. We tested MP3 encoding with an audio-CD track that was 9 minutes and 25 seconds long and converted it using a default setting of 128 Kbps in SoundJam. Speedmark is a suite of common tasks (see [www.macworld.com/speedmark](http://www.macworld.com/speedmark)).—Macworld Lab testing by James Golbroith





# KnockOut 1.5

## KNOCKOUT 1.5

**Rating:** ★★★★★

**Pros:** Fast; does a great job of masking complex objects and shapes.

**Cons:** Somewhat difficult to learn; no Photoshop-plug-in version.

**List price:** \$280; download, \$239

**Company:** Corel, 800/772-6735, [www.corel.com](http://www.corel.com)

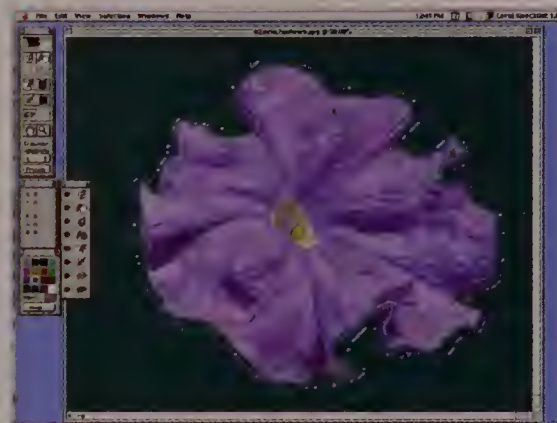
## MACWORLD'S BUYING ADVICE:

Like any good tool, KnockOut takes time to learn, but no application does a better job of creating masks that involve complex objects such as smoke, hair, and transparent surfaces. If you do a lot of compositing work, KnockOut is a must.

If you've ever composited two images in an application such as Adobe Photoshop, you know how time-consuming and tedious selecting an area from one image for compositing with another can be. The first version of KnockOut (*Reviews*, January 1999) was a great solution to even the most difficult masking problems, and Corel's KnockOut 1.5 (produced by Ultimatte) offers some simple new tools that make building complex masks even easier.

As with version 1, you define a mask by painting two paths—one inside the object to be masked, the other outside. KnockOut analyzes the area between these paths to build a mask that eliminates your

selection's background. The new Loupe Zoom tool makes drawing a precise path easier by magnifying the image as you make your selection. And you can now test the accuracy of your mask more easily by inserting another image or color plate behind it.—BEN LONG



**One-two Punch** You can create complex masks in KnockOut 1.5 by outlining the inside and outside of an object.

superpowers



# Palm m100

Entry-Level Handheld Is Ideal for New Users  
but Offers Pro Features

## PALM M100

**Rating:** ★★★★★<sup>1/2</sup>

**Pros:** Comfortable design; inexpensive; Mac desktop software is included.

**Cons:** Small screen; Expense and Mail programs omitted.

**List price:** \$150

**Company:** Palm, 800/881-7256, [www.palm.com](http://www.palm.com)

## MACWORLD'S BUYING ADVICE:

The m100 may be a consumer-level device, but it boasts most of the professional features that have made Palm OS the dominant handheld operating system. If you've considered purchasing a Palm organizer for your favorite Mac novice, the m100 is your best choice.

The entry-level, \$150 Palm m100 handheld organizer might seem to suggest that Palm has cut corners to be able to match the price of the Handspring Visor (★★★★); "Anywhere, Everywhere, Everything Palm," July 2000). But the m100 proves to be a better device than even the most ardent techno-elitist would like to admit—especially for users who are new to the world of handheld computing.

The m100's appearance makes it easy to pick this handheld out of the Palm lineup. Slightly taller and wider than the Palm V and with a curved shell, the slate-colored m100 is lightweight and comfortable in your hand. (You can add a removable faceplate in one of five bright colors for \$20.) It includes a HotSync cable instead of an upright cradle, reducing desktop clutter and enhancing portability; however, you'll still need to purchase a USB or serial adapter to connect it to your Mac.

If you've ever used a handheld, you'll notice Palm's main concession to price: compare the slightly smaller than 2-by-2-inch plastic screen with other Palms' 2¼-by-2¼-inch glass screens. Even so, the display is crisp (the resolution is the same as in previous models) and workable. The plastic cover flips up and over the top of the device to rest flat against its back, not perched halfway like an automobile hood. And the built-in speaker is significantly louder than

those in previous models, so you may actually hear the alarms you set.

The m100 includes only 2MB of memory and can't be flash-upgraded (as most other Palm devices can)—in other words, it can't be upgraded beyond Palm OS 3.5.1. However, that's plenty of memory for basic functions, and expandability isn't an essential consideration for the m100's target audience.



Functionally, the m100 works like every other Palm OS-based device, with a few notable exceptions. The Note Pad application allows you to write or draw on the screen as if it were a Post-it note and then synchronize to a similar Note Pad application (included) on your Mac. The omission of the Expense and Mail programs is vexing, but the Macintosh Palm Desktop software is included—something Palm should have been doing all along.—JEFF CARLSON



UTILITY SPEEDS COPYING, HANDLES LIGHT BACKUP CHORES

# CopyAgent 1.0

## COPYAGENT 1.0

**Rating:** ★★★★★

**Pros:** Smart folder copying; speedier network copying.

**Cons:** No notification if destination lacks sufficient space for copy; allows only manual file selection for scheduled copies.

**List price:** \$40

**Company:** Connectix, 800/950-5880, [www.connectix.com](http://www.connectix.com)

### MACWORLD'S BUYING ADVICE:

Despite minor flaws, CopyAgent 1.0 is an indispensable utility that deserves to be built into Mac OS. It's that good.

Even we Mac fanatics must admit that our favorite OS sometimes isn't very smart. Copy a folder to a destination that contains another folder with the same name, and the Finder duplicates everything—even if the contents are almost identical. Connectix Speed Doubler 8 solved this problem by copying only items that had changed, but it was never updated for Mac OS 9. In response to user requests, Connectix resurrected many of Speed Doubler's most-compelling features in a new utility called CopyAgent.

When you copy a folder using the Finder, CopyAgent's enhanced Replace dialog box presents you with two additional options: SmartReplace copies only new or changed items,

and Synchronize updates both folders so that they contain the most recent versions of all the items. If there isn't sufficient room to complete the copy, CopyAgent quits without copying anything—a bug that Connectix plans to fix in an update.

CopyAgent can save you a significant amount of time if your source folders contain hundreds of files. The Network Copy extension saves you even more time when you copy folders over a network. And CopyAgent lets you schedule copies in advance—a good way to back up important data—though you have to add items to the copy queue manually. And because CopyAgent doesn't filter files, it can't replace a dedicated backup utility.—FRANKLIN N. TESSLER

## supersonic

Stunning curves. Unearthly technology. Rocket speed. Our new Trackball Explorer and Trackball Optical look different because they are. Improved IntelliEye optical technology and our advanced ball design turn the slightest movement into precise cursor action at mind-numbing speed. Available on Macintosh or Windows-based PCs. [www.microsoft.com/mouse](http://www.microsoft.com/mouse)

**Microsoft**  
Where do you want to go today?

# Illustrator Plug-Ins

Filters Add Effects and Efficiency  
to Illustrator's Toolbox

## FILTERIT 3.0

**Rating:** ★★½

**Pros:** Fabulous replication effects.

**Cons:** Some features irrelevant in Illustrator 9; no printed manual.

**List price:** \$129

**Company:** CValley, 949/727-9161, [www.cvalley.com](http://www.cvalley.com)

## VECTOR STUDIO 1.0

**Rating:** ★★★★★

**Pros:** Powerful distortion capabilities and selection management; good documentation.

**Cons:** Needs slight RAM increase in Illustrator 8.

**List price:** \$130

**Company:** Virtual Mirror, 415/472-3359, [www.virtualmirror.com](http://www.virtualmirror.com)

## MACWORLD'S BUYING ADVICE:

If you're looking for distortion tools, Vector Studio's Morph brushes and Envelope Mesh tool make it the best choice. Otherwise, both packages contain unique, well-implemented effects. Most of Vector Studio's plug-ins are also available à la carte, giving you even more buying options.

**A**lready bored with the new features in Adobe Illustrator 9.0? Two new plug-in packages should cure your ennui. Although Filterit 3.0 and Vector Studio 1.0 share a bit of common ground, each package provides additional time-saving tools and intriguing effects for die-hard Illustrator users.

### Crooked Paths

It's in the area of path distortions that these packages overlap, and Vector Studio comes out on top. Filterit's Roughening tool disrupts paths' smoothness effectively, but Vector Studio gives you several specialized brushes, with descriptive names such as Scallop, Crystallize, and Wrinkle, for the job. Filterit's Warp and Wave tools are intuitive and easy to use when you're distorting entire objects, but Vector Studio's Envelope Mesh tool offers the ultimate in precision, letting you reshape objects by dragging external and internal mesh points.

The Gradient Texture tool is another Vector Studio stand-out, creating vector-based textures that resemble bitmaps yet remain resolution-independent. But Vector Studio's most indispensable filter is the Selection Hat, which lets you save and recall any selection—a lifesaver in complex files.

The handiest tool among Filterit's touted "eighty-two

effects" ("twenty" would be a more reasonable count) is the AlignPoints tool, which earns its name with only a couple of mouse clicks. But Filterit really shines with plug-ins that replicate objects in orderly or disorderly patterns. The MetaBrush tool and live effects—such as Tiling, Explosion, and Galaxy—offer stunning and complex designs. There are a couple of let-downs, however: the Fade tool simulates transparency by fading copies of an object to a color you select, but this seems antiquated next to Illustrator 9's true transparency abilities. Likewise, Illustrator 9's live Drop Shadow makes Filterit's Live Shadow superfluous.

Vector Studio requires that you increase Illustrator 8's default RAM by a modest amount, but otherwise both packages run smoothly in versions 8 and 9. Vector Studio's manual is well written; Filterit lacks printed documentation, and its built-in help is rife with errors.—GALEN FOTT



**Morph and Windy** Exhale is one of Vector Studio's dynamic Morph brushes; others used here are Inhale, Wrinkle, and Swirl.



# Videodelic

## VIDEODELIC

**Rating:** ★★★★★

**Pros:** Creates beautiful images; interactive.

**Cons:** Timeline not as useful as it could be.

**List price:** \$249

**Company:** U & I Software,  
650/364-0556,  
[www.uisoftware.com](http://www.uisoftware.com)

### MACWORLD'S BUYING ADVICE:

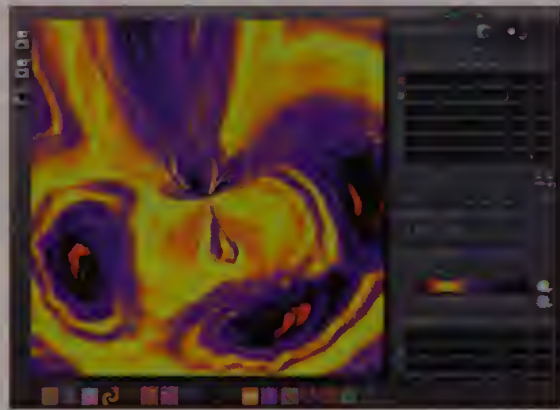
Videodelic is a unique program capable of creating rich, interactive, psychedelic video images. Musicians with a visual bent, multimedia artists, and computer DJs will find it particularly attractive.

U & I Software, creator of innovative applications such as MetaSynth and ArtMatic, has released another imaginative multimedia tool—Videodelic, a real-time video-art synthesizer. Like ArtMatic (*Reviews*, June 2000), Videodelic lets you create swirling, psychedelic images; the difference is that Videodelic is far more interactive than ArtMatic, allowing you to control images' movement and color in real time.

The building blocks of your Videodelic projects are still images, QuickTime movies, and live video streams, but you'll barely recognize the sources once Videodelic is finished with them. The program twists, tints, melts, and manipulates source material in fascinating ways using

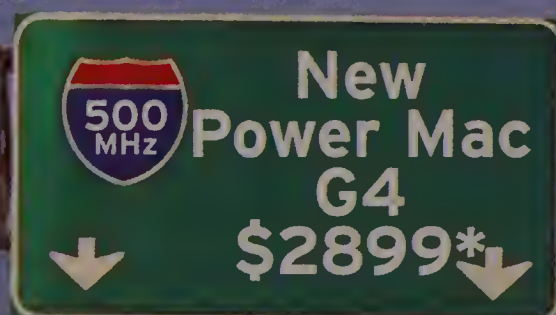
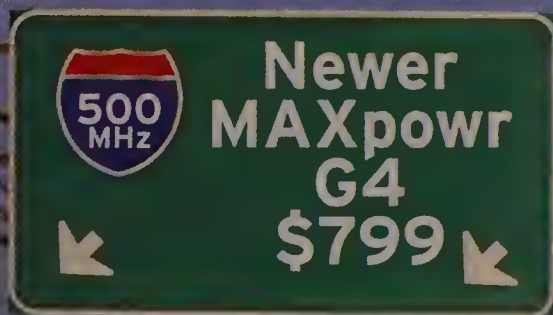
effects and filters.

In Videodelic's timeline, you can string together effects, add an audio soundtrack, and export your work as a QuickTime movie. Unfortunately, to play from a particular spot in the project, you have to scroll the timeline to the point where you'd like to begin playing.—CHRISTOPHER BREEN



**Far Output** You apply filters and effects in Videodelic's Output window.

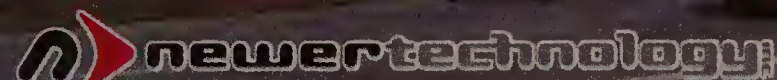
## Straight isn't always best.



### Choose Newer instead of new.

With a MAXpower upgrade from Newer Technology, you can upgrade to the performance of a new Mac for about 1/3 the cost of new. And you can continue using your existing monitor and memory, as well

as the peripherals you already own. Think of the time you spent configuring your Mac the way you want it. Save time. Save money. Spend less. Newer Technology. First in upgrades.<sup>SM</sup>



[www.newertech.com](http://www.newertech.com) • [www.newerstore.com](http://www.newerstore.com)

Toll Free 1-877-605-0010

\*Price does not include cost of monitor and adding memory.

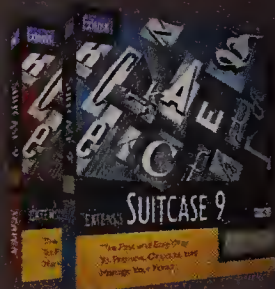
Comparison pricing current at time of ad submission. Newer is a registered trademark and MAXpower is a trademark of Newer Technology, Inc. All other names are trademarks or registered trademarks of their respective holders. No part of this document may be reproduced without the express written permission of Newer Technology, Inc. All rights reserved.



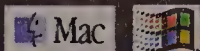


WINDOWS  
VERSION  
NOW  
AVAILABLE

## At least it's easy to control your fonts.



Small workgroups—access  
the same fonts right away  
with Suitcase Server's  
free 3-user license.



*The more fonts you have, the harder they are to control. Suitcase 9 is like obedience school for fonts. It's the fastest, easiest way to preview, organize and control your fonts. Your system will run faster and crash less when you activate only the fonts you need, when you need them. And with Suitcase Server, your workgroup can use the same set of fonts—across the room or around the world. Don't let your fonts go to the dogs. Get Suitcase 9.*

**NEW!**

Extensis Suitcase 9

[www.extensis.com/mw](http://www.extensis.com/mw)

800.796.9798

**Extensis**  
TM

© 2000 Extensis Product Group. All rights reserved. Extensis and the Extensis logo are trademarks of Extensis Product Group. Suitcase is a trademark of Symantec Corporation. All other trademarks are the property of their respective owners.

Circle 14 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



**STATEMENT OF OWNERSHIP,  
MANAGEMENT, AND CIRCULATION  
REQUIRED BY 39 U.S.C. 3685**

1. Publication Title: Macworld
2. Publication Number: 0741-8647
3. Filing Date: September 20, 2000
4. Issue Frequency: Monthly
5. Number of Issues Published Annually: 12
6. Annual Subscription Price: \$34.97
7. Known Office of Publication: 301 Howard Street, San Francisco, CA 94105
8. Complete Mailing Address of the Headquarters of General Business Offices of the Publisher: Mac Publishing, L.L.C., 301 Howard Street, San Francisco, CA 94105
9. The Names and Addresses of the Publisher, Editor, and Managing Editor Are: Publisher: Colin C. Crawford, 301 Howard Street, San Francisco, CA 94105; Editor: Andrew Gore, 301 Howard Street, San Francisco, CA 94105; Managing Editor: Jennifer Scholl, 301 Howard Street, San Francisco, CA 94105
10. The Owners Are: Mac Publishing, L.L.C., 301 Howard Street, San Francisco, CA 94105; Ziff-Davis Publishing, 28 East 28th Street, New York, NY 10016; Macworld Communications, Inc., 301 Howard Street, San Francisco, CA 94105
11. There are no known bondholders, mortgagees, or other security holders holding 1 percent or more of total amount of bonds, mortgages, or other securities.
12. Tax Status: Has not changed during preceding 12 months
13. Publication Title: Macworld
14. Issue Date for Circulation Data Below: October 2000
15. EXTENT AND NATURE OF CIRCULATION: Average No. Copies Each Issue during Preceding 12 Months: A. Total Number of Copies (net press run): 574,374; B. Paid and/or Requested Circulation: 1. Paid/Requested Outside-Country Mail Subscriptions Stated on Form 3541: 368,679; 2. Paid In-County Subscriptions Stated on Form 3541: 0; 3. Sales through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution: 64,508; 4. Other Classes Mailed through the USPS: 0; C. Total Paid and/or Requested Circulation: 433,187; D. Free Distribution by Mail (samples, complimentary, and other free): 1. Outside County as Stated on Form 3541: 11,736; 2. In-County as Stated on Form 3541: 0; 3. Other Classes Mailed through the USPS: 0; E. Free Distribution Outside the Mail (carriers or other means): 0; F. Total Free Distribution: 11,736; G. Total Distribution: 444,923; H. Copies Not Distributed: 129,451; I. Total: 574,374; J. Percent Paid and/or Requested Circulation (15C divided by 15G times 100): 97.36%.
15. EXTENT AND NATURE OF CIRCULATION: No. Copies Single Issue Published Nearest To Filing Date: A. Total Number of Copies (net press run): 572,742; B. Paid and/or Requested Circulation: 1. Paid/Requested Outside-Country Mail Subscriptions Stated on Form 3541: 384,891; 2. Paid In-County Subscriptions Stated on Form 3541: 0; 3. Sales through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution: 59,900; 4. Other Classes Mailed through the USPS: 0; C. Total Paid and/or Requested Circulation: 444,791; D. Free Distribution by Mail (samples, complimentary, and other free): 1. Outside County as Stated on Form 3541: 13,021; 2. In-County as Stated on Form 3541: 0; 3. Other Classes Mailed through the USPS: 0; E. Free Distribution Outside the Mail (carriers or other means): 0; F. Total Free Distribution: 13,021; G. Total Distribution: 457,812; H. Copies Not Distributed: 114,930; I. Total: 572,742; J. Percent Paid and/or Requested Circulation (15C divided by 15G times 100): 97.16%.
16. This Statement of Ownership will be printed in the December 2000 issue of this publication.
17. I certify that the statements made by me above are correct and complete: Stephen A. Daniels, VP/Chief Operations Officer; September 20, 2000.

GRAPHICS SYNTHESIZER GETS ANIMATION CONTROLS

# Studio Artist 1.5

**Rating:** ★★★★★

**Pros:** Unmatched effects and image-cloning features.

**Cons:** Complex, somewhat un-Mac-like interface.

**List price:** \$329

**Company:** Synthetik Systems, 888/808-4188, [www.synthetik.com](http://www.synthetik.com)

**Macworld's Buying Advice:**

With its complex, often un-Mac-like interface, Studio Artist 1.5 may baffle those with a short attention span—you need to spend some time with this program to get a feel for it. Once you do, though, you'll find it contains some of the most powerful digital painting tools available.

Synthetik Systems' Studio Artist is about as different from other paint programs as it is from a can of paint. Billed as the world's first graphics synthesizer, the program offers an astounding array of tools and effects for creating still images and complex animations, and version 1.5 adds the ability to animate the properties of brush strokes over time. But Studio Artist's unique tools are accompanied by a unique interface; to become proficient in this program, you have to be willing to log many hours with it.

## Painting in Patches

Studio Artist's interface uses a music-synthesizer metaphor. You brush effects onto your canvas using *patches*, which range from natural-media effects to hallucinatory swirls. More than 600 patches are included—and you can build your own.

But the program's most impressive feature is its ability to clone an image: it can sample the color in an image and then use that color to paint a second

image using the currently selected patch. You can easily turn a photo into a watercolor, for example, by painting over the image using the watercolor patch. Unlike other programs, such as Corel's Painter, that offer cloning features, Studio Artist uses complex algorithms that clone intelligently.

One of the best features in Studio Artist 1.0 (★★★★½; *Reviews*, November 1999) was its ability to turn QuickTime movies into animations. Version 1.5 goes a step further with a sequencer that lets you animate the parameters of your patches over time to create wild, ever-changing paint effects.

The new Texture Synthesizer offers an overwhelming assortment of controls for creating textures. Using the synthesizer and the new animation features, you can render everything from complex morphs to psychedelic, swimming textures and colors. Another new feature, a set of 3-D-lighting tools, lets you control how light interacts with a painted surface to create textures and complex lighting effects that would otherwise require an art degree and years of training.—BEN LONG



**Auto Sunflowers** Studio Artist's auto-painting engine does an incredible job of generating strokes that follow the lines, contours, and forms of an underlying image.



# PowerCADD 2000

## POWERCADD 2000

**Rating:** ★★½

**Pros:** Slick, quick 2-D drafting environment.

**Cons:** Many cool features available only as extras.

**List price:** \$795

**Company:** Engineered Software, 336/299-4843, [www.engsw.com](http://www.engsw.com)

### MACWORLD'S BUYING ADVICE:

If I were teaching a beginning CAD course, I'd use PowerCADD 2000 because it produces first-rate drafting results with minimal frustration. The 2000 version has the friendliest learning curve of any Mac CAD program, it has enough new features to justify upgrading, and it produces impressively artistic results.

**P**owerCADD has long been a favorite of newcomers to computer-aided design. It's probably the only serious CAD program you can teach yourself in an afternoon, without a manual. It's actually fun to use, because it gets your drawing right the first time without requiring dozens of annoying little fix-ups. It supports graphic elements that will probably remind you more of Adobe Illustrator than of a CAD program; although it's 2-D only, it's not just for making blueprints.

Two new features in the latest version, PowerCADD 2000, are real improvements: the Tool palette now expands so you can see all the draft-

ing tools at once, and you can view a thumbnail preview of each drawing before you open it via the File menu.

Another plus in this version is a Table tool, which lets you add tables and parts lists to drawings. There's also a flashy new Gradient Fill tool that allows you to add a gradient fill to any closed shape—an impressive effect, although it's not clear how drawings with gradient fills translate to clunky old AutoCAD.

### Thin on Trappings

What's a bit objectionable is the number of goodies Engineered Software has left out of PowerCADD 2000, making them available as extra-cost plug-ins. Two libraries

# DiskWarrior® has than



**1999 Macworld Editors' Choice Awards**  
Winner, Utility Software. "DiskWarrior is an excellent 'ax' to add to your disk-repair and -maintenance arsenal. DiskWarrior's ease of use, speed, and new method of fixing disk problems make it a powerful disk-maintenance product."



**1999 MacUser Awards**  
Best Utility/Enabling Software. "For providing a new, easier to use, safer, and often more successful alternative to more bloated recovery applications, the judges felt DiskWarrior deserved top billing..."



**1999 Apple Design Awards**  
Most Innovative Product, Runner-up Best New Product



**5 Out Of 5 Stars**  
"Every Mac on the planet can benefit from DiskWarrior!"

**Repairs disk problems such as disks that won't mount, files you  
Now with DiskShield™ to prevent damage to your disks before**



for mechanical engineering are \$79 each, and some very nice architectural engineering libraries go for up to \$129 each. The versatile WildTools drafting plug-in—which features great tools for filleting, drawing Bézier-type curves, and creating instant architectural drawing elements—costs \$189. One could argue that these goodies *should* be extra, but making that case for the \$150 DXG file (AutoCAD) translator is harder. Imagine buying a word processor that required you to purchase an add-on translator for Microsoft Word. A little generosity on Engineered Software's part would be welcome.

Compared with Nemetschek's VectorWorks (♦♦♦♦, *Reviews*, June 1999), PowerCADD is more intuitive, and it can produce fancier 2-D drawings with less effort. On the other hand, it can't match Vector-

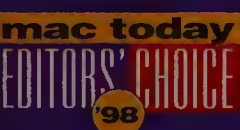


**Show and Tell** With PowerCADD 2000, you can expand the Tool palette to display the entire set of drafting tools with a single click.

Works' 3-D features, DXG translation, scripting language, and group/collaboration support. VectorWorks is a better choice for

bigger shops; PowerCADD 2000 is ideal if you're drafting on your own.—CHARLES SEITER

# Even more top awards any disk utility ever.



Mac Today  
1998 Editors'  
Choice  
Awards

Outstanding Disk Rescue Product.  
"DiskWarrior belongs in the arsenal  
of every Mac owner!"



disk problems with zero effort."

MacHome - Five Apples,  
MACnificent Award  
"DiskWarrior is a deceiv-  
ingly simple yet incredibly  
powerful disk repair utility,  
which is able to fix your



"DiskWarrior comes  
to the rescue..."



MacHome 8th Annual  
Home Choice Awards  
Best Utility. "Got lots of votes for  
repairing and preventing damage  
to hard disks so well. DiskWarrior 2.0  
is a quick solution to faster, more stable hard drives."

Don't trash, and folders that have disappeared.  
occurs. Visit [www.Alsoft.com](http://www.Alsoft.com) for details.

Circle 141 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

[WWW.ALSOFT.COM](http://WWW.ALSOFT.COM)

**ALSOFT**

1-800-257-6381

© 2000 Alsoft, Inc.  
Alsoft, DiskWarrior,  
DiskShield are trade-  
marks of Alsoft, Inc.



Once you have  
**your film,**  
 all you need are the right  
**connections.**



Don't keep the world waiting for your masterpiece. Transfer it out of obscurity and onto your computer with the Belkin **USB VideoBus II** for Macintosh® computers. **VideoBus II** lets you zip your unforgettable images anywhere, quicker than you can say *Sundance*. Now you can capture and edit live video on your computer—then put your creation on CD, DVD, the Web, or in e-mail for all the world to adore. All you need is the **VideoBus II** to connect your Mac to any camcorder.

Capturing your images is just the beginning. **VideoBus II** for Macintosh computers comes with Strata's VideoShop 4.5, the impressive editing package for creative professionals. Features such as its Motion Path Editor and unlimited tracks for powerful compositing will have you designing and producing professional quality movies on your computer in no time. Create incredible presentations, videos and e-mails that really open doors.

So capture a **VideoBus II** connection, and let your images dazzle them in the light of day.



VideoBus II™  
 Part #: F5U208-MAC



**MicroWAREHOUSE®**



**macZone®**

**ClubMac®**

**SEARS**



**COMPUSA**  
 THE COMPUTER SUPERSTORE®

**MacMall**

**MICRO CENTER®**



belkin.com

Belkin Components • 310.898.1100 • Fax 310.898.1111 • Compton, CA • Atlanta, GA • United Kingdom • Holland  
 ©2000 Belkin Components. All rights reserved. All trade names are registered trademarks of respective manufacturers listed. 20AD327/MCW-DEC



## InterMapper 3.0



**Rating:** ★★★★★

**Pros:** Lower entry price; SNMP trap handling; customizable probes and Web display; excellent support.

**Cons:** None.

**List price:** From \$295 (10 devices) to \$1,595 (unlimited devices)

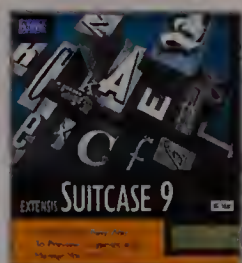
**Company:** Dartware, 603/643-2268, [www.dartware.com](http://www.dartware.com)

**Macworld's Buying Advice:**

InterMapper 3.0 does it all, and new pricing makes the program affordable for even small networks. It's a must-have for any network administrator.

Dartware's InterMapper 3.0 gives you more bang for less buck than any other network manager on the market, delivering network mapping, monitoring, and graphing; Web viewing; and alert notification through an easy-to-navigate interface. Version 3.0's enhancements are legion: the program captures SNMP traps, supports custom network probes, monitors environmental sensors, controls Web access by user, and lets you customize its Web display. Even more valuable: Dartware listens to its customers and updates its product expeditiously. But the company's genius lies in its ability to add new features without muddying InterMapper's clear, functional countenance.—MEL BECKMAN

## Suitcase 9



**Rating:** ★★★★½

**Pros:** Easy-to-use interface; good sorting abilities.

**Cons:** Inconsistent automatic font activation.

**Company's estimated price:** \$100

**Company:** Extensis, 800/796-9798, [www.extensis.com](http://www.extensis.com)

**Macworld's Buying Advice:**

Veteran Suitcase users may be disappointed with version 9's inconsistent font activation. But if the previous version's interface was vexing you, this Suitcase may be just the ticket.

Extensis Suitcase's user interface has never been one of its strong points—until now. The revamped interface in Suitcase 9.0.1 makes it easier to add, view, sort, and activate font sets. A new Unified window lets you view and sort fonts easily, either alphabetically or by name, foundry, or suitcase. The window can also be tailored to alternately hide or show sets, fonts, and previews singly or in concert.

Suitcase 9 can activate fonts individually. You create and load new font sets via menu commands or by dragging and dropping. As with version 8, you also get Suitcase XT, an XTension for QuarkXPress.—ANDREW SHALAT

*(Note: Macworld's parent company, Mac Publishing L.L.C., is an investor in Extensis's parent company.)*

## B4



**Rating:** ★★★★½

**Pros:** Exquisite sound; great interface; CD includes Windows version.

**Cons:** Copy-protected.

**Company's estimated price:** \$199

**Company:** Native Instruments, 800/665-0030, [www.native-instruments.com](http://www.native-instruments.com)

**Macworld's Buying Advice:**

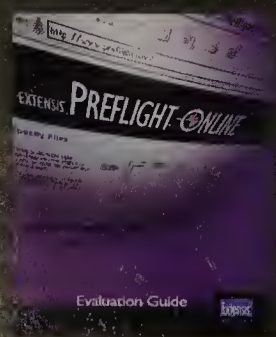
Plenty of hardware-based B3 mimics are available, but they start at about \$1,000. B4 sounds as good as any B3 mimic and costs a lot less. It's a stunning triumph in software synthesis.

Since its introduction in 1955, the Hammond B3 organ has become a mainstay of music genres ranging from jazz to blues to gospel to rock. Hammond stopped building B3s in 1974, and a B3 in good condition fetches several thousand dollars. Now you can turn your Mac into a B3 with Native Instruments' B4. This software synthesizer uses sophisticated modeling techniques to re-create the B3's distinctive, beefy sound—complete with rotating Leslie speaker—with astonishing accuracy. Better still, you can control every sound parameter from a MIDI sequencer program or hardware controller. You can also tweak sounds in real time using B4's true-to-life interface.—JIM HEID

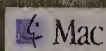




## Make it this easy for your clients to preflight their own files.



For a free evaluation  
guide, or to sample  
Preflight Online, please visit  
[extensis.com/preflightonline](http://extensis.com/preflightonline).



*Preflight Online™ makes it easy for your clients to check their files before delivering them to you. Clients can now simply drag and drop their PDF files onto your Web site. Within moments, a detailed report identifies missing fonts, graphics with the wrong resolution, and over 100 other checks customized by you to match your output requirements. And Preflight Online not only finds any problems, it automatically tells your clients how to fix them—virtually eliminating prepress bottlenecks. It's as close as it gets to a sure thing.*

**NEW!** Extensis Preflight Online

[www.extensis.com/mw](http://www.extensis.com/mw)

800.796.9798

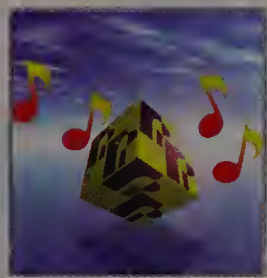
**Extensis**™

© 2000 Extensis Product Group. All rights reserved. Preflight Online, Extensis and the Extensis logo are trademarks of Extensis Product Group. All other trademarks are the property of their respective owners. Golf course photo courtesy of Camas Meadows Golf Club.

Circle 14 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



## PlayerPro 5.6



**Rating:** ★★

**Pros:** Complete music player; inexpensive.

**Cons:** Confusing interface; inadequate documentation.

**List price:** \$69

**Company:** Quadmation, 888/833-3622, [www.quadmation.com](http://www.quadmation.com)

**Macworld's Buying Advice:**

Although it's a fine music player, PlayerPro is a confusing compositional tool. Download the free version from Quadmation's Web site to try before you buy.

Antoine Rosset's venerable music-editing application PlayerPro has two distinct functions. It's a versatile music player that allows you to play common file formats such as MIDI, WAV, SND, and AIFF as well as rare file types such as S3M, MED, and SM. It's also a music editor that lets you create the compact MOD music files that were popular on the Amiga platform.

Although playing a music file with PlayerPro 5.6.2 is a straightforward operation, creating and editing MOD files is anything but. PlayerPro mimics the interface elements of MIDI sequencers, but the process of entering music isn't intuitive, and the sparse electronic documentation does little to help you learn how to assemble compositions.—CHRISTOPHER BREEN

## Deus Ex 1.0



**Rating:** ★★

**Pros:** Well plotted; elaborate, dynamic story line.

**Cons:** Vast resource requirements; no multiplayer option.

**List price:** \$40

**Company:** Aspyr, 888/212-7797, [www.aspyr.com](http://www.aspyr.com)

**Macworld's Buying Advice:**

If you have the slightest interest in the conspiracy-theory genre—and your Mac has the resources (at least 64MB of RAM)—you'll find that Deus Ex is an engrossing adventure.

Deus Ex's designers have borrowed successfully from the *X-Files* school of storytelling—a long, overarching story line broken into smaller episodes—to make a game that will keep you occupied for many hours. As an agent for an antiterrorist coalition, your goal is to ferret out and retrieve a purloined plague antidote. You can play Deus Ex as a shoot-'em-up or as a sneakier game, avoiding guards instead of blasting them into their component electrons. The choices you make throughout the game—even trivial ones—affect how the plot continues. The graphics are good, there is plenty of gadgetry, and the levels are large—but the compelling story line is what makes Deus Ex a truly great game.—STEPHAN SOMOGYI

For these reviews:

[www.macworld.com/2000/12/reviews/online.html](http://www.macworld.com/2000/12/reviews/online.html)

LINK

★★★★½ Apple Cinema Display  
22-inch flat-panel monitor

★★★★ ACOMdATA 30GB FireWire  
Hard Drive

★★★ Fantom Drives FireWire Hard  
Disk Drive 30GB

★★★★½ VST FireWire 10GB Hard Drive

★★★★½ VST FireWire Full-Height 20GB  
Hard Drive

★★★★½ VST USB/FireWire 10GB Hard  
Drive

FireWire hard drives

★★★★ icWord  
File translator

★★★★ Asanté FriendlyNET Cable/DSL  
Router

★★★★½ UGate 3200

★★★★ Linksys EtherFast 1-Port  
Cable/DSL Router

Internet routers

★★★★ Documents To Go 2.0  
Palm software

★★★★½ MCE Xcarét Pro Media Bay  
CD-RW Drive

PowerBook CD-RW drive

★★★★½ Fetch

★★★ Interarchy

★★★★ NetFinder

★★★★½ Transmit

★★★★½ ViacomSoft FTP

FTP clients

★★★★½ KidSpeak

Children's language software

★★★★ CodeWarrior LE  
Beginning programming

★★★★½ Biopharmaceutical  
Technology 101

Biotechnology courseware

### Reviews You Can Trust

OUTSTANDING: ★★★★★

VERY GOOD: ★★★★

GOOD: ★★★

FLAWED: ★★

UNACCEPTABLE: ★

RATINGS



Don't just watch your  
favorite game shows  
*Play them at home!*

Buy 2  
Get \$1

back by mail when you  
two games from  
15 Mar  
Comple

## WHEEL OF FORTUNE



## JEOPARDY!



### Give the Wheel a Spin!

Now you're in the game with many, never-before-seen puzzles to solve. See if you can solve a variety of clever puzzles, specially written by the producers of the Wheel of Fortune television program. Join host Vanna White as she takes you and your fellow contestants on location and on your way to cash and prizes!

### The Answer is...

The popular, thought-provoking game show that keeps you coming back for more! Put yourself on the set with host Alex Trebek and experience the glamour, the pace and the excitement from the contestant's point of view. With more than 3,500 challenging answers Jeopardy is better than ever and ready to play on your Mac!

*Are you ready to play?*



©2000 Hasbro Interactive, Inc. All rights reserved. Jeopardy! is based on the television series produced by Columbia TriStar Television, a Sony Pictures Entertainment Company. Jeopardy! is a registered trademark of Jeopardy Productions, Inc. ©2000 Jeopardy Productions, Inc. All rights reserved. Wheel of Fortune is a registered trademark of Calton Productions, Inc. ©2000 Calton Productions, Inc. All rights reserved. Published and distributed by Infogrames, Inc. under its MacSoft label. All other trademarks are the property of their respective owners.

MacSoft®

[www.wizardworks.com/macsoft](http://www.wizardworks.com/macsoft)

Circle 30 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



# The Game Room



Much has been written about the unholy abomination, the ugly stain upon the national soil that is the Ill-Chosen Holiday Gift. Every time that a child opens a present and discovers a pair of sensible slacks, that a husband unwraps a metric socket-wrench set, or that a wife receives any sort of electric depilatory product, the act resonates. The Arctic ice cap weakens and cracks.

The birds mope in the trees, not knowing why their songs come out with such difficulty. The dolphins take note and wonder if the time isn't ripe to finally seize their destiny as the planet's dominant intelligence.

All because some friend or relative just didn't *think*. Gifts are a big responsibility, even in the gaming arena. So look at these suggestions. They all fulfill the elements of the Three I's of Cool Gifts: Improbability, Ingenuity, and "I gotta try this right now!"

Surely there can be no more-certain sign of success than when your nephew opens your gift and dashes straight upstairs to his computer, completely forgetting about that bicycle-shaped package next to the tree.

There's no shortage of USB input devices in my office. I get to try 'em all. Each has its strengths and weaknesses, but Miacomet's Real Feel Pool Shark (\$30; [www.miacomet.com](http://www.miacomet.com)) is utterly hopeless as a mouse substitute. I mean, completely. Which is OK, because you're meant to grasp it on your tabletop and stroke a pool cue through it, lending an air of verisimilitude to billiards sims.

You gotta admire this thing. It's not like a flight-sim joystick, which is studded with controls and buttons for weapons but can still be used as a generic game controller. The Pool Shark is good as an accessory for only one Mac game—MacSoft's Real Pool. But it elevates the game to an entirely new level. As a devoted patron of my

neighborhood's Free Cheese Pizza With An Hour's Table Rental pool room, I'm familiar with the sensations of the game, and this thing is frighteningly good.

Of course, stroking a pool cue is probably far too tangible an act to faithfully replicate, but the feedback is good, and the correlation between the stroke you deliver through the Pool Shark and the resulting impact in the simmed table is spot-on. Most importantly, when you return to a "real" table after a few weeks simming around, shooting will seem wonderfully familiar, and you'll be scamming free drinks off your friends all night.

I'd be thrilled if someone gave me Digital Leisure's DVD edition of Dragon's Lair (\$50; [www.digitalleisure.com](http://www.digitalleisure.com)). The generations that preceded mine get all nostalgic about big cars and doped-out musicians who died foolishly. But we grew up on *Star Wars* and video games. Even fifteen years later, Don Bluth's line of cel-animated laser-disc coin-ops still gets my heart pumping and my hands twitching—*Left, left, sword! Right, up!*—to guide Dirk the Daring through the castle to save the sexy-as-Cinemax-after-10 p.m. Princess Daphne from the dragon.

Though the cinema-quality animation is ultimately far more evocative than Quake's, we're talking early-eighties tech here: you don't so much control Dirk as cue him. In each scene, there are moments when you must cue him to

*continues*

move in any of four directions or to use his sword. Of the three Bluth discs available from Digital Leisure, *Dragon's Lair II: Time Warp* is the champ, with the mostest and bestest animation and a lot more humor than the original.

So I'd love it as a gift. Although if I'd actually paid \$50 of my own dough for it expecting more than a nostalgia trip, I'd feel a little ripped off. Game play bites. On DVD there's a lag between your cues and Dirk's actions, with often fatal results. And though the DVD works in almost any stand-alone player, compatibility is spotty in computers; it played in a Power Mac G3 with an MPEG card but not on my PowerBook G3's DVD drive. But here's the good news if you'll be shopping for Class of 2001 graduation gifts: Digital Leisure has announced a Mac DVD-ROM edition, to be released early in 2001.

How exciting is a new pair of headphones? Not very. Koss's Sportapro (\$30; [www.koss.com](http://www.koss.com)) headphones don't even come in iMac colors, but their physical design makes them world-beaters—they're a magic bullet for folks who find themselves gaming in places other than the "sweet spot" of their home-theater setup. They're the only headphones I've seen that both deliver the maximum sound of a good game track *and* are practical for travel.

You can wear them as you do regular headphones. You can swing the headband back and wear them as a set of around-the-neck phones (and unlike Sony's set, these are adjustable, so no longer must hat-fanciers with enormous heads struggle under the tyranny of ill-fitting headphones). You can fold the Sportapro headphones one way and roll them up into a ball for storage, or you can fold them another way, and they'll slip into your satchel perfectly flat. And there's a mute button built into the cord.

My first order of business when I check into a hotel is to replace the set of headphones that got busted during the flight over. But I hope these Sportapro headphones, thanks to their durability and storage flexibility, will be the last I own . . . until I leave them in a cab somewhere. The best endorsement I can give them is that almost all the fellow geek travelers I've recommended them to have bought 'em for themselves and then for their friends.

Yes, people, all of this buying-gifts-for-others business can be dreadfully tedious, particularly if you're a heartless bastard for whom the potent lessons of *Mr. Magoo's Christmas Carol* meant nothing.

So it might be a good idea to add a game bundle such as Bungie's Mac ActionSack (\$20; [www.bungie.com](http://www.bungie.com)) to your shopping cart. It's an awful choice for an experienced gamer (I'd liken it to giving Roger Ebert a DVD of

this great old movie that you're sure he'll like . . . *Casablanca*), but it's a winner for new iMac owners who have never played any of the games in the Marathon series. In addition to the complete trilogy, there are three examples of Early Bungie.

But back to the heartless-bastard angle. See, the recipient doesn't have to know that this is a six-game set. So if you never got around to play-



**Dirk Slays** In *Dragon's Lair*, you play through a classic early-eighties animated video-game adventure via your DVD player.

ing Marathon Infinity, just help yourself to the disc.

See? There's a lot of great hardware and software out there for the gifting. If you're an aunt, however, I understand that the motivation to give a kid clothes might be too stubbornly intertwined into the RNA to suppress. OK, so at least give a great T-shirt. How about this one, my current fave-of-the-week: a simple study in navy and white that reads, "Macintosh for productivity. Linux for development. Palm for mobility. Windows for Solitaire." How can you resist? It's only \$13 from MacSurfshop ([www.macsurfshop.com](http://www.macsurfshop.com)).

So when you shop this holiday season, choose wisely. Even if none of my game-related suggestions strike a chord, don't just lash out and buy any old thing that's end-capped at Best Buy for \$20.

The fate of the planet hangs in the balance, for the dolphins bide their time and make their plans even as we speak. And thanks to the silly machinations of those bleeding-heart so-called "animal rights" activists, we're forbidden from launching a preemptive strike against our future enslavers before they've mastered the use of tools. **m**

Veteran Mac columnist ANDY IHNATKO ([www.andyi.com](http://www.andyi.com)) wishes to advise our future dolphin masters that he always buys the dolphin-safe brands of tuna.



# Live the *Wild Life*...

With The SIMS Livin' Large Expansion Pack!



# The SIMS™



TEEN  
COMIC MISCHIEF  
MATURE SEXUAL THEMES  
MILD ANIMATED VIOLENCE



**Westlake**  
INTERACTIVE

**MAXIS**  
Maxis™ is a brand  
of Electronic Arts™

**ASPYR™**  
Authorized Electronic Arts™ Distributor

[WWW.ASPYR.COM](http://WWW.ASPYR.COM)

© 2000 Electronic Arts, Inc. EA Games, The Sims, Maxis, the Maxis logo, and Electronic Arts are trademarks or registered trademarks of Electronic Arts, Inc. in the U.S. and/or other countries. All rights reserved. EA Games™ and Maxis™ are Electronic Arts™ brands. The ratings icon is a trademark of the Interactive Digital Software Association. The Aspyr Media logo is a trademark of Aspyr Media, Inc. Macintosh and the MacOS logo are trademarks of Apple Computer, Inc. All other trademarks are the property of their respective holders.

Circle 91 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



# INDEX TO ADVERTISERS

Interact with the companies whose products and services are advertised in **Macworld**

ADVERTISER	INTERACT	PAGE NO.	ADVERTISER	INTERACT	PAGE NO.
3DFX Interactive	3dfx.com	25	Mac Zones	maczone.com	142-149
ACD Systems	acdsystems.com/mw	98	MacMall/Creative Computers	800-222-2808	133-141
Adaptec	adaptec.com/mac	97	Macromedia	macromedia.com	29
Adobe Systems Inc.	adobe.com	18-19	MacSoft	gtstore.com	60,83,90,103
Alsoft	alsoft.com	114-115	MacWarehouse	800-355-5841	150-157
American Power Conversion	888-289-APCC	17	MegaHaus	800-786-1184	163
Anthro	anthro.com	14	MicroMat	800-829-6227	30
APS Technologies	800-950-2015	160-161	Microsoft	microsoft.com/mac	100B-C
Aspyr Media	aspyr.com	123	Microsoft	—	105,107,109
ATI Technologies, Inc.	ati.com	49	MYOB	800-322-MYOB	93
Belkin Components	belkin.com	116	Nemetschek North America	nemetschek.net	10
Brother	brother.com	13	Netscape	netscape.com	126
Canon Computer Systems	ccsi.canon.com	C2-1	Newer Technology	newertech.com	111
CDW Computer Centers	800-509-4239	158-159	Nikon Electronic Imaging	nikonusa.com	15
Creativepro.com	creativepro.com	112	Novatel Wireless	novatelwireless.com	87
Creativepro.com	creativepro.com	118	Olympus America	P400.olympus.com	8-9,33-36
Crucial Technology	crucial.com	20-21	Orange Micro	714-779-2772	78
Dataviz	800-270-0030 ext.133	64	PowerOn	poweronsw.com	79
dot tv	www.tv	46	Silicon Image	digitalisbetter.com	75
Epson America, Inc.	800-BUY EPSON	54	Sonnet Technologies	800-786-6260	43
Gathering of Developers	godgames.com	50-51	Symantec	symantic.com/mac	59
GCC Technologies	gcctech.com	6-7	Thursby Software Systems	thursby.com	71
Harman Multimedia	877-266-6202	2-3	ViewSonic	800-888-8583	94
J&R Computer World	800-221-8180	162	VST Technologies	vsttech.com	22
Kensington	kensington.com	BC	Wacom Technology Corp.	800-922-2585	84
La Cie	lacie.com	100A	XANTE Corporation	xante.com	CV3



# PRODUCT INDEX

Looking for a specific product? Simply use Macworld's product index to find the page or the advertiser of the products which interest you. Then simply log on at [www.macworld.com/getinfo](http://www.macworld.com/getinfo) and receive all the product information you need.

PAGE NO.	ADVERTISER	GET-INFO	PAGE NO.	ADVERTISER	GET-INFO
----------	------------	----------	----------	------------	----------

## ACCESSORIES

### FURNITURE

14	Anthro	—
----	--------	---

## HARDWARE

### COMPUTER SYSTEMS

142-149	Mac Zones	72
133-141	MacMall/Creative Computers	132

### HARD DISK STORAGE

160-161	APS Technologies	56
100A	La Cie	—
163	MegaHaus	108
22	VST Technologies, Inc.	74

### MISCELLANEOUS

97	Adaptec	—
17	American Power Conversion	73
116	Belkin Components	64
20-21	Crucial Technology	—
2-3	Harman Multimedia	3
BC	Kensington	1
84	Wacom Technology Corp.	85

### MONITORS/ GRAPHICS BOARDS

25	3DFX Interactive	25
49	ATI Technologies, Inc.	114
111	Newer Technology	63
87	Novatel Wireless	75
78	Orange Micro	61
75	Silicon Image	149
43	Sonnet Technologies	133
94	ViewSonic	—

### NETWORKING PRODUCTS

116	Belkin Components	64
-----	-------------------	----

### PRINTERS

13	Brother International Corporation	119
C2-1	Canon Computer Systems	23
54	Epson America, Inc.	62
6-7	GCC Technologies	47
193	XANTE Corporation	113

### SCANNERS & DIGITAL CAMERAS

15	Nikon Electronic Imaging	59
8-9,33-36	Olympus America	7

## MAIL ORDER

160-161	APS Technologies	56
158-159	CDW Computer Centers, Inc.	2
162	J&R Computer World	57
142-149	Mac Zones	72
133-141	MacMall/Creative Computers	132
150-157	MacWarehouse	19
163	MegaHaus	108

## SERVICES

### INTERNET PRODUCTS/SERVICES

112	Creativepro.com	14
118	Creativepro.com	14
46	dot tv (www.tv)	125
126	Netscape	—

## SOFTWARE

### BUSINESS/PRODUCTIVITY

98	ACD Systems	31
64	Dataviz	142
100B-C	Microsoft	—
105,107,109	Microsoft	—
93	MYOB	171
10	Nemetschek North America	126
79	PowerOn	118
71	Thursby Software Systems	124

### ENTERTAINMENT

123	Aspyr Media	91
50-51	Gathering of Developers	68
60,83,90,103	MacSoft	30
78	Orange Micro	61

### GRAPHICS/DTP

18-19	Adobe Systems Inc.	—
-------	--------------------	---

### MULTIMEDIA

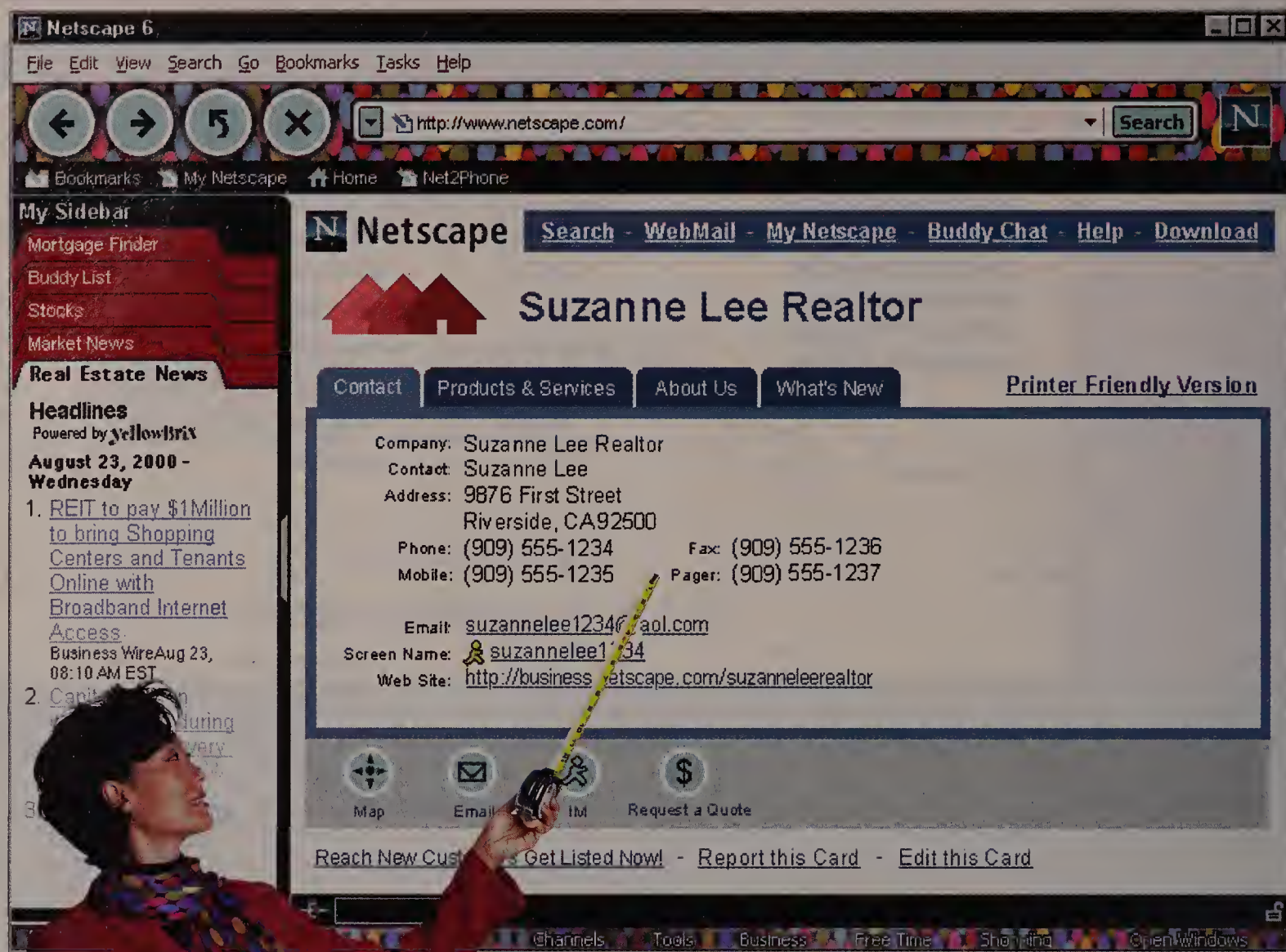
18-19	Adobe Systems Inc.	—
29	Macromedia	129

### UTILITIES

114-115	Alsoft	141
30	MicroMat	37
59	Symantec	128



# Personalize your Internet with Netscape®



**Suzanne Lee** is a realtor who knows how important it is to stay up-to-date on her industry. That's why she'll find Netscape Netbusiness invaluable. Designed for small business owners, Netscape Netbusiness will allow Suzanne to get what she needs from the Internet – quickly, easily and customized just for her. She can take her real estate business online with her own customized electronic business card -- and even have her business listed on Internet yellow pages and leading search engines. She can also have access to an online community of other realtors (great for networking). Put Netscape to work for your growing business and see what it's like to experience the Internet your way.

Sign up today at [Netscape.netbusiness.com](http://Netscape.netbusiness.com) or America Online Keyword: Netbusiness. It's free.

Sign up for your own Netbusiness Card at [Netscape.netbusiness.com/card](http://Netscape.netbusiness.com/card) by 12/13/00 and get over \$1500 in free and discounted products and services from FedEx, kinkos.com, Office Depot, and others.



# Macworld

## *Conference & Expo*

# *ahead*

**Moscone Convention Center**  
***San Francisco, CA***

***Conference & Expo***  
***January 9 – 12, 2001***

Owned and Managed by  
**IDG**  
WORLD EXPO

***www.macworldexpo.com***

***Call Toll Free 1-800-645-EXPO***

***Register Online by***  
***December 11, 2000***  
***for special savings!***

# Macworld Conference & Expo

## Macworld Conference & Expo *ahead*

### Technology Professionals and Users are gathering at the **largest West Coast IT event** – Macworld Conference & Expo/San Francisco 2001!

**Conference &  
Workshop Programs**  
January 9 – 12, 2001

**Exposition**  
January 9 – 12, 2001

[www.macworldexpo.com](http://www.macworldexpo.com)

**Register Online  
by December 11,  
2000 to receive  
Special Discounts!**

Be sure to use to your  
Priority Code: A-MW6N

Reflective of both the Macintosh platform's tremendous growth and momentum, and the growing influence of the Internet, Macworld Conference & Expo is much more than a biannual gathering of Mac users. **Macworld Conference & Expo is undeniably one of the IT industry's largest and most influential events!**

Macworld Conference & Expo/San Francisco 2001 will showcase an unprecedented array of more than 500 exhibiting companies, thousands of new products and innovations, mind-opening training, and real-world solutions for the computing professionals, creative professionals, educators and home-users alike. As diverse as the Mac platform itself, the show floor offers hands-on demonstrations to help you evaluate and purchase products, services and solutions for your particular needs.

Our world-renowned conference programs will equip you with the knowledge and solutions you need to stay ahead in this thriving and highly competitive marketplace! The conference agenda will help you develop your Macintosh skills, master the most popular software application and provide in-depth education on some of the most exciting topics in Macintosh computing today. As Mac OS X nears its official release, Macworld Conference & Expo/San Francisco 2001 is pleased to present comprehensive training classes on this major upgrade to the Macintosh operating system.

#### **Keynote Addresses**

Each Morning,  
January 9 – 11, 2001

#### **Pre-Conference Workshops**

Tuesday, January 9, 2001

#### **Macworld/Pro & Macworld/ Users Conference Programs**

January 10 – 12, 2001

#### **MacBeginnings Sessions**

January 9 – 11, 2001

#### **Exposition Hall**

January 9 – 12, 2001

#### *Flagship Sponsors*

**Macworld**

MACBUY.COM

Macworld.com

MacWEEK.com

MacCentral.com

Visit [www.macworldexpo.com](http://www.macworldexpo.com) for complete schedules and program updates!



## Keynote Addresses\*

Hear the insights and predictions of the people who are moving the industry ahead at the three Macworld Conference & Expo Keynote Addresses. Macworld Conference & Expo is where news is made — **don't miss this opportunity to hear it first!**

**Tuesday, January 9**

**9:00 am - 10:30 am**

*TBA*

**Wednesday, January 10**

**10:30 am - 11:30 am**

*Kevin Browne, General Manager,  
Macintosh Business Unit,  
Microsoft Corporation*

**Thursday, January 11**

**9:00 am - 10:00 am**

*Rob Burgess, CEO, Macromedia*

\* Keynote Presentations are open to conference and workshop attendees only. Seating is on a first-come, first-served basis.

## Show Highlights

### Back by Popular Demand – The Internet Café!

The Internet Café offers you a comfortable setting where you can check your email, access the Internet, grab a snack and cup of coffee, chat with your colleagues and friends, or receive free technical advice from experts.

Apple Solutions Experts are independent consultants, trainers, and resellers specializing in Apple products and solutions who will be offering **free technical support** to Macworld Conference & Expo attendees. Take advantage of this opportunity to get help directly from an expert while you visit the Expo floor!

Sponsored by



### Macworld Conference & Expo Digital Art Gallery

Be sure to visit and view the winning images of the Macworld Conference & Expo Digital Art Contest. Now in its third year, the Gallery will display thirty creative digital art portraits from both student and non-student categories. Finalists were chosen by a respected panel of judges from the digital art community. Please visit [www.macworldexpo.com/gallery](http://www.macworldexpo.com/gallery) for more information or to view past year's winners.

Sponsored by



### Brand New!

### Guided Expo Tours of Macworld Conference & Expo

Knowledgeable guides will help you find what you're looking for! After rave reviews this July in New York City, we're bringing the Macworld Conference & Expo Guided Expo Tours to San Francisco!

Whether you are a new attendee to Macworld Conference & Expo, or a returning Mac user, the Apple User Group volunteers can help you find the products, services, solutions and companies you want to see. These knowledgeable guides will have the entire show mapped out, will assess your needs and escort you right to what's hot, help you find seats for demonstrations, and bring you to the people who have answers to your questions. We urge you to take advantage of this wonderful service!

### Brand New!

### Special Interest Boulevards

Throughout the Special Interest Boulevard at Macworld Conference & Expo/San Francisco 2001, you'll find Mac developers who specialize in the following types of products:

- Digital Media
- Small Business
- Sci-Tech
- Assistive Technology
- 3D
- Edutainment

## Music & Audio Showcase

This highly-enjoyable area will feature developers showing the latest Mac products and tools for music and audio creation, production, and processing; mastering; CD authoring; MP3 creation and publishing; music education, and the latest innovations in music and audio networking. But that's not all; the Music and Audio Theater, sponsored by Apple, will feature live concerts, all of which showcase the Mac's musical and audio prowess in action.

## Macintosh Gaming Area

The Macintosh is the hottest new gaming platform around! Discover the latest Mac Gaming products from the top Mac publishers within the Macworld Conference & Expo Gaming Area. This area also offers the Mac Gaming Theater, where you'll see the latest, greatest games for the Mac. You can partake in exciting hands-on demonstrations of the games in action. And when you decide you need to have one of the games being demonstrated, be sure to visit the on-site games retail area. If you're a fan of Mac games (and who amongst us isn't?), you're not going to want to miss the Mac Gaming Theater, sponsored by Apple.

## MacBeginnings!

To help you get even more out of your time at Macworld Conference & Expo, we've put together a lineup of educational sessions that are **free and open to all registered Macworld Conference & Expo attendees!** We'll be presenting tips, techniques and perspectives on the hottest topics in the industry, all presented by experts in their fields.

MacBeginnings Sessions include:  
*Your Guide to Macworld Conference & Expo/San Francisco 2001*  
*Macintosh 101*  
*The Desktop Movie Revolution*  
*Hanging 10 in Cyberspace*

**[www.macworldexpo.com](http://www.macworldexpo.com)**

**1-800-645-EXPO**



**Register Online  
by December 11,  
2000 to receive  
Special Discounts!**

Be sure to use to your  
Priority Code: **A-MW6N**

## Pre-Conference Workshops

**Tuesday, January 9**

**12:00 pm - 7:00 pm**

The week begins with 13 astounding, full-day workshops that provide in-depth training on key products and technologies. You can find full workshop descriptions at

**[www.macworldexpo.com](http://www.macworldexpo.com).**

- WA** Practical Introduction to Mac Networking
- WB** Integrating Professional Publishing Tools
- WC** Managing Shared Macintosh Computers with Apple Macintosh Manager
- WD** The QuickTime Professionals Workshop
- WE** Your First Mac OS X Workshop
- WF** Getting Started with AppleScript
- WG** JavaScript and Dynamic HTML Wizardry
- WH** The Filemaker Workshop
- WI** Web Video Revolution Workshop
- WJ** Final Cut Pro
- WK** Getting Started in Interactive Development
- WL** Web Animation Essentials, Tools and Techniques
- WM** PDF Secrets for Print or Web
- WN** Secrets of Shooting Great Video

## Macworld/Pro Conference Program

The Macworld/Pro conference agenda presents topics of interest to the computing professional who relies on the Macintosh as his/her platform of choice. A new conference agenda has been developed offering the most sophisticated training available on Mac networking, digital video (with an emphasis on QuickTime), professional publishing, Mac systems administrations for large organizations, and detailed technical presentations that take you inside Mac OS X.

## 5 Macworld/Pro Tracks: Networking

This track presents techniques and technologies associated with deploying Macintosh LANs, WANs, and Internet/Intranet access. These technical presentations take you inside the protocols and services you encounter when deploying connected Macintoshes. Get the most of your network or make it state of the art — these tactical sessions will show you how.

Sessions Include:

- Mac Networking Update***
- Real-World Network Management with the MacOS***
- On the Trail of Network Problems***
- Securing Your Internet Connection***
- The Evolution of Macintosh Networking***
- Network Security in a Mac OS X Environment***
- Network Managers Forum***

## Digital Video

Streaming media is the next big thing for Internet media and Apple technology provides the best tools to produce and deliver the highest quality content. Attend sessions in this track to hear from industry experts and top practitioners how to use the tools you'll need to create quality material and deliver it to your viewers. You'll also gain an insight into the future of professional digital video and broadcast topics with special presentations on Motion Graphics, Digital Television and more.

Sessions Include:

- QuickTime for Broadband Networks***
- Editing Voice and Music: Power-User Tips for the NLE Operator***
- QuickTime for the Web***
- QuickTime Compression Secrets***
- QuickTime Interactivity***
- Introduction to Special Effects on the Macintosh***
- The Mac as a Platform for Mainstream Media Innovation***

## Professional Publishing

Sessions in this track provide advanced training on key Macintosh tools that differentiate the Mac platform. AppleScript, WebObjects and PDF are featured.

Sessions Include:

- Play Nice with Your Service Bureau***
- Expediting Your Workflow with Remote Soft Proofing***
- Dynamic PDF Generation on your Web Server***
- Color Management***
- Dynamic Messages/Narrow Pipe***
- Business Transformation and Web Migration***

## Mac OS X

Macworld Conference and Expo is pleased to present the first technical educational curriculum on Apple's new operating system — Mac OS X. Designed for systems administrators and managers of large installations, sessions in this track take you inside the technology and exposes the issues, tips and details required for installing, managing and running this incredible new platform.

Sessions Include:

- Java Advantages in Mac OS X***
- Mac OS X, Quartz and PDF — the Real Story***

## Mac Manager

The Mac continues to be a platform in transition. Organizations that depend on the Mac OS now are facing new software and hardware options that require a considerable amount of strategic planning to ensure successful deployment. This track features sessions that look at the needs of organizations using the Mac and present the methods, practices and technologies that are defining the role of the Macintosh manager.

Sessions Include:

- Becoming a Successful Mac Manager, Part 1 — Business Issues***
- Becoming a Successful Mac Manager, Part 2 — Tips, Tools and Techniques***
- Advanced AppleScripting***
- Linux Options for PPC***
- The Truth About Emulation***
- Backup Strategies for Mac Managers***
- The Java Report***

Visit **[www.macworldexpo.com](http://www.macworldexpo.com)** for complete schedule and program updates!



## Macworld/Users Conference Program

The Macworld/Users Conference continues to be **one of the best educational values anywhere** offering 80 conference sessions on a variety of exciting topics all presented by industry experts. Get your first taste of Mac OS X, learn all about making Desktop Movies, Digital Photography and get tips on using your favorite applications. We've also got special programs geared towards Educators, Musicians and Small Business Owners.

### Wednesday, January 10

- S01** *Your First Mac OS X Class*
- S02** *Mac OS X Strategies for Small Business*
- S03** *Apple Staff Development On-line*
- S04** *iMovie*
- S05** *Welcome to the Internet*
- S06** *Making Music in the New Millenium*
- S07** *Day in the Life of a Mac Photojournalist*
- S08** *Photoshop and ImageReady: From Ho-hum to Wow! in 60 Seconds*
- S09** *Mac OS Update*
- S10** *Why Crashes Happen and What to Do about Them*
- S12** *Macintosh Telephone Assistant*
- S13** *Internet and iTools for Educators*
- S14** *Shooting Great Video*
- S15** *Modem, DSL, Cable Modem or ISDN — Which is for Me?*
- S16** *Making Music in the New Millenium*
- S17** *The Best Image for Your Byte*
- S18** *3D Animation: An Introduction*
- S19** *AppleScript Primer*
- S20** *PalmPilot & Macintosh — A Match Synched in Heaven*

- S21** *A Mac User's Survival Guide on Working with Windows Clients*
- S23** *The Digital Grade Level: Its Emerging Ramifications and Findings*
- S24** *Creating Custom Soundtracks for Your Desktop Movies*
- S25** *Getting Started with MP3*
- S26** *In a PowerBook Groove: The Live Performance Laptop*
- S27** *Choosing a Digital Camera*
- S28** *Stretching the Capabilities of FileMaker Pro*
- S29** *Internet Power The Mac Way with iTools*
- S30** *Mysteries of the System Folder Revealed*

### Thursday, January 11

- S31** *Troubleshooting Mac OS X: Get Ready!*
- S32** *Vision Thing Live!*
- S33** *Four Thousand Macs on a Network Without Using Novell or NT: How and Why to Run on all Mac Educational Network*
- S34** *Editing Techniques for iMovie 2*
- S35** *Power Surfing: Hanging 10 in CyberSpace*
- S36** *Beginners Guide to Music on the Mac*
- S37** *Making a Life While Making a Living*
- S38** *Learn What's New in Microsoft Office 2001 for Mac*
- S39** *Introduction to QuickTime™*
- S40** *Best of the Macworld Mac Secrets*
- S42** *How to Make Your Old Mac Stuff Work with Your New Mac Stuff*
- S43** *Building an Online Education Solution*
- S44** *Making Movies with the QuickTime Player*
- S45** *Broadband: Is it the Wave of the Future?*

- S46** *A Virtual Studio Revolution*
- S47** *Guerrilla Marketing for eCommerce Startups*
- S48** *Communicate and Take Control of Personal Information with Microsoft Entourage 2001*
- S50** *Upgrade Your Mac and Live to Tell About It*
- S51** *Backing Up's not Hard to Do*
- S52** *Web Site Do's and Don'ts*
- S53** *Mac Lab Management Made Easy*
- S55** *Webmaster Focus: JavaScript and Dynamic HTML Wizardry*
- S56** *Myths and Facts about Digital Audio*
- S57** *A Mac User's Survival Guide for Working with Windows Clients*
- S58** *Photoshop Power Shortcuts*
- S59** *An Introduction to Macintosh User Groups*
- S60** *How to Digitally Archive Your Family History*

### Friday, January 12

- S61** *Taking Control of Your Mac*
- S62** *Macworld's Ultimate Powerbook Tips*
- S63** *Applied iMovie for Education*
- S64** *Science Education*
- S65** *QuickTime Streaming for Learning*
- S66** *Create Local, Promote Global*
- S67** *Putting Your Small Business on the Web*
- S68** *Just Flash It!*
- S69** *Your Wireless Future*
- S70** *PalmPilot & Macintosh — A Match Synched in Heaven*
- S71** *Macworld Conference & Expo Gaming RoundUp*
- S72** *Keep Your Mac Healthy*
- S73** *Digital Storytelling in K-8 Classrooms*
- S74** *Macs in the Law Office*
- S77** *A Small Business Intranet Construction Kit*
- S80** *The Care and Feeding of Hard Disks*

## Travel & Venue



ETMI is the official travel company for Macworld Conference & Expo/San Francisco 2001 taking place January 9 – 12, 2001. ETMI has obtained exclusive discounted rates from major airlines and hotels just for you!

### Hotel Reservation Instructions:

- Book on-line using [www.macworldexpo.com](http://www.macworldexpo.com) and receive immediate hotel confirmations!
- Call toll free at 1-888-442-7683 in the US or 1-312-396-2127 outside the US, Monday – Friday from 9:00 am – 7:00 pm EST.

A credit card deposit of one night room and tax is required at time of booking for all hotels. Hotel accommodations and rates are based upon availability and valid until December 14, 2001, at which time they are subject to change. Rates are subject to 14.45% state and local tax per room, per night, and are not included in rates above. Exclusive discounted hotel rates are only available through ETMI.

### Airline Reservation Instructions:

ETMI offers discounted midweek rates on United Airlines and American Airlines to San Francisco with savings up to \$1,500.00 per person!

Call ETMI Monday – Friday at 1-888-442-7683 from 9:00 am – 7:00 pm EST.

We can book your reservations for you on any airline as well as these special fares on United Airlines and American Airlines.

For your convenience, you may also call the airlines directly as noted below. Please make sure to mention the tour code to take advantage of these low fares.

United Airlines  
1-800-521-4041  
Tour Code: 5510F

American Airlines  
1-800-433-1790  
Tour Code: A6711UH

**[www.macworldexpo.com](http://www.macworldexpo.com)**

**1-800-645-EXPO**



Moscone Convention Center, San Francisco CA

Early Discount Deadline: December 11, 2000

**1. Attendee Information**

Fill out the form completely. Incomplete forms will be returned unprocessed. Please use one form per person; make photocopies for additional people.

First Name		M.I.		Last Name	
Title					
Company					
Street Address					
<small>(Please Indicate Apt. #, Suite or Mail Stop)</small>					
P.O. Box		City			
<small>(if applicable)</small>					
State/Province		Zip Code/Postal Code		Country	
Telephone		Ext.		Fax	
Email Address					

Check here only if you DO NOT wish to receive product information or news from Macworld Conference &amp; Expo, it's exhibitors or industry-related third parties via email.

**2. Registration Package Selection & Fees**

Pre-Conference Workshops: January 9, 2001, Conference Programs: January 10 – 12, 2001 Exposition: January 9 – 12, 2001.

All Conference Sessions Keynote Addresses are on a first-come, first-served basis with the exception of the Pre-Conference Workshops.

WORKSHOP	PACKAGE	INCLUDES	ON OR BEFORE DEC 11	AFTER DEC 11
<input type="checkbox"/>	<b>Super Pass</b>	Pre-Conference Workshop, Macworld/Pro Conference Sessions, Macworld/Users Conference Sessions, Lunch, Keynotes, MacBeginnings Sessions, Exhibits	<b>\$1,095</b>	<b>\$1,195</b>
	<b>Macworld/Pro Conference</b>	Macworld/Pro Conference Sessions, Macworld/Users Conference Sessions, Lunch, Keynotes, MacBeginnings Sessions, Exhibits	<b>\$845</b>	<b>\$895</b>
	<b>Macworld/Users I</b>	Macworld/Users Conference Sessions, Keynotes, MacBeginnings Sessions, Exhibits	<b>\$195</b>	<b>\$245</b>
<input type="checkbox"/>	<b>Macworld/Users II</b>	Pre-Conference Workshop, Lunch (Workshop Day ONLY), Macworld/Users Conference Sessions, Keynotes, MacBeginnings Sessions, Exhibits	<b>\$525</b>	<b>\$575</b>
<input type="checkbox"/>	<b>Workshop</b>	Pre-Conference Workshop, Lunch (Workshop Day ONLY), Keynotes, MacBeginnings Sessions, Exhibits	<b>\$395</b>	<b>\$445</b>
	<b>Exhibits ONLY (Jan 9 – 12)</b>	Exhibits and MacBeginnings Sessions ONLY. <small>(Does NOT include admission to the Keynotes)</small>	<b>\$10</b>	<b>\$25</b>

**4. Payment Information (You will be charged for all registrations received including duplicates)**Payment must accompany form for registration to be complete. **DON'T PAY FOR THIS EVENT TWICE!** You will be charged for all registrations received and will not be refunded for duplicate registrations. Please use one method of registration only. PO's are not accepted.

All Registration fees are non-refundable and credentials are non-transferable. A \$20 fee will be charged for all returned checks.

Check enclosed (make check payable to IDG World Expo)			Indicate Check #:
MasterCard	Visa	American Express	Amount \$
Card Number			Expiration Date
If payer is other than registrant, please print name and/or company name below:			
First Name		M.I.	
Last Name			
Company Name			
Cardholder Signature			


Workshops, speakers, conference sessions are subject to change, please visit [www.macworldexpo.com](http://www.macworldexpo.com) for the most up-to-date information.**3 Easy Ways to Register:**

Use ONE of the following methods to register for Macworld Conference &amp; Expo/San Francisco 2001.

- Web** [www.macworldexpo.com](http://www.macworldexpo.com)
- Mail To** Macworld Conference & Expo/San Francisco, P.O. Box 3321, Boston, MA 02241-3321. Through 12/11/00 ONLY.
- Fax To** 805-654-1676. Faxed registration forms must include credit card information. Through 12/11/00 ONLY.

Special Discounts for Educators &amp; Students!

Go to [www.macworldexpo.com](http://www.macworldexpo.com) for complete details.

Please check here if you have any special needs that require attention.  (Attach a written description of your needs.)  
Check here if you qualify for the student/educator discount.

Check here if you wish to register for 4 Super Passes and receive the 5th FREE! (All forms must be received together by mail/fax ONLY)

PRIORITY CODE

**A-MW6N**

Register online with your Priority Code to receive a Free Expo Pass, if registered by December 11, 2000.

**3. Attendee Profile**

(Must be filled out to process your registration)

**For what purpose are you purchasing/evaluating products and services?**

- For My Company/Organization/Dept
- For Myself as a Consultant/Sole Proprietor
- For Myself as a Consumer
- For Myself as an Educator

**What is your industry?**

- Aerospace
- Architecture/Construction/Process Industries
- Arts & Entertainment
- Banking/Finance/Insurance/RE
- Business/Professional Services
- Computer Reseller/VAR/VAD/Service
- Consulting
- Education: K-12
- Education: Higher Ed
- Education: Other
- Engineering/R&D
- Gaming/Game Development
- Graphic Design/Creative Services
- Government/Military
- Health/Medical/Pharmaceutical
- Independent Software Vendor
- Manufacturing (Computer Industry)
- Manufacturing (Non-computer Industry)
- Marketing/Sales/PR/Communications
- Media/Publication/Broadcasting
- Non-profit Organization
- Printing/Publishing
- Publication/Association
- System Integrator
- Transportation/Utilities
- Website Admin/Content Development
- Web Design
- Other

**What is your job function?**

- Artist/Art Director/Graphic Designer
- Business Development/Strategic Planning
- Consultant
- Controller/Treasurer/Accounting/CFO
- CEO/President/Owner

- CIO/CTO/IT Executive
- Department Head/Vice President
- Director/Manager
- Editorial/Writing
- Educator/Teacher
- Engineering/Scientific/R&D
- Human Resources
- ISP/ASP
- IT/IS, Support
- Marketing/Sales/PR/Communications
- Networking/Network Management
- Operations
- Professional (Lawyer, Doctor, etc.)
- Programming/Analysis
- Purchasing/Corporate Buyer
- Software Programmer/Developer
- Student
- Technology
- Training
- Web Admin/Content Development
- Web Design

**What is the size of your organization?**

- Under 50
- 50-99
- 100-499
- 500-999
- 1000 & Over

**Which personal computers do you use?**

- (Check all that apply)
- Powerbook G3
  - PowerMac/PowerMac G3
  - PowerMac G4/Cube
  - iMac
  - iMac DV/DV+/Special Edition
  - iBook
  - IBM PC or compatible desktop
  - IBM Laptop/Notebook
  - Other

**What is your role in making purchases?**

- Final Decision Maker
- Specify Products or Vendors
- Recommend Product or Vendor
- No Role

**What is your annual purchasing budget?**

- \$0 – 25,000
- \$25 – 100,000
- \$100 – 500,000
- \$500 – 1,000,000
- > \$1,000,000



# We'll Beat Any Price!

on any Mac Computer. Call for details.

**UMAX** Astra 1200S SCSI Scanner  
only **\$49<sup>99</sup>!**  
#94312 Call for details.

**EPSON** Stylus Photo 870 Printer  
only **\$299<sup>99</sup>!**  
\$100 mfr. mail-in rebate when you buy an Epson Photo printer and any digital camera.  
#57323 Call for details.

**100MB USB Zip Drive**  
only **\$69<sup>99</sup>!**  
#58759  
Call for details.  
Mfr. reconditioned.

**Power Mac G4s** starting at **\$1,594!**  
up to an **Extra 128MB FREE!**  
Call for details!

# MacMall

Since 1985

**MacMall Exclusive!**  
up to **128MB RAM FREE!**  
**FREE SHIPPING OFFER ON MACS!**  
Call for details.

**New Faster iBooks**  
starting at **\$1,494!**  
Call for details.

**NEW PowerBooks**  
starting at **\$2,494!**  
Extra **128MB FREE!**  
Call for details!

**NEW iMacs**  
starting at **\$799!**  
Extra **64MB FREE!**  
Call for details!

**Power Mac G4 Cube**  
**\$1,794!**  
Extra **64MB FREE!**  
Call for details!

**NEW! Office 2001**  
Upgrade today!  
only **\$254<sup>99</sup>!**  
#849861 Call for details.

**NEW! Adobe Photoshop 6**  
Upgrade today  
only **\$178<sup>99</sup>!**  
#291291 Call for details.  
Limited time offer. We reserve the right to limit quantities.  
Call for details.

**MacMall Exclusive!**  
**USB Digital Camera**  
**\$79!**  
only  
Digital Camera with any purchase over \$200!  
#4763 \$20 mfr. mail-in rebate.  
Call for details.

**Power Mac G4 BLOWOUT!**  
starting at **\$1,298!**  
Call for details.

400MHz \$1,298 save \$300!  
450MHz \$1,794 save \$700!  
500MHz \$2,494 save \$1,000!

**1-800-217-9492 macmall.com**  
Fastest Overnight Delivery! Order today—get it tomorrow!

**FedEx**  
Federal Express



**PRICE MATCH**



#52913	64MB PC100 SDRAM	\$146 <sup>99</sup>
#52914	128MB PC100 SDRAM	\$276 <sup>99</sup>
#52915	256MB PC100 SDRAM	\$528 <sup>99</sup>
#58576	512MB PC100 SDRAM	\$1,384 <sup>99</sup>

## Hot Peripherals!

**OLYMPUS**

**D-460  
Zoom  
Digital  
Camera**

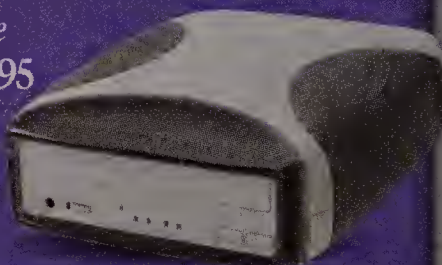
your price  
**\$499**  
#951256



**QPS Que!Fire Drive  
8x4x32 FireWire  
CD-RW**

your price  
**\$319<sup>95</sup>**

#52867  
Price reflects  
\$30 mfr.  
mail-in rebate.



**BELKIN**

**USB Video  
Bus for Mac**

your price  
**\$74<sup>99</sup>**  
#54469



**4-Port USB  
Mini Hub  
Plus  
Graphite**

only  
**\$24<sup>99</sup>**  
#64201



Authorized Reseller

**Airport  
Base Station**

only  
**\$294**  
#57373



#57369 Airport Card

\$99<sup>99</sup>

# The New iMac!

## 350MHz G3 Processor and Stereo Sound



Check out the affordable new iMac. It has a faster processor and a bigger hard disk so you can quickly surf the Internet, send and receive e-mail, whip out your home-work assignments and play CDs on its Harman Kardon Odyssey audio system.

### Processor and Memory

- 350MHz G3 PowerPC processor
- 64MB SDRAM; support up to 1GB
- 7GB Ultra ATA hard disk drive
- Slot-loading 24X speed CD-ROM drive

### Display

- Built-in 15" (13.8" viewable image size)
- Resolutions up to 1024 x 768

### Communications

- Built-in 56K V.90 modem
- 10/100Base-T Ethernet
- 2 USB ports

### Extras Include:

- Apple Pro Keyboard and Pro Mouse
- Mac OS 9 ● AppleWorks
- Bugdom ● Nanosaur



350MHz iMac

**\$799**

only

#951155 (Indigo only)

64MB RAM; 7GB HD; 24X CD-ROM Drive; 56K modem

Own  
this iMac  
for as low as  
\$23/month  
with the NEW  
MacMall EZ  
Payment  
Plan!

# Make Your Own Movies!

## iMac DV—Your Personal Movie Studio!

The era of Desktop Movies has arrived! Assemble an all-star cast from among your friends and family. Then

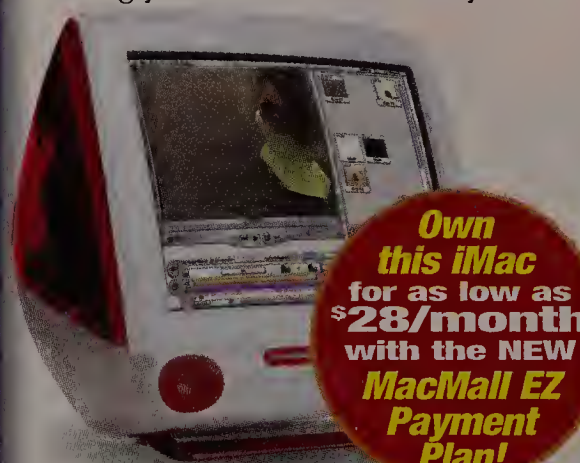
with your DV camcorder, your new iMac DV and iMovie 2 software, you're ready for action.

**Luscious new colors!**

Ruby or Indigo? It's your choice with the iMac DV Model!

**Includes USB and FireWire ports!**

- 400MHz G3 PowerPC processor
- 64MB SDRAM; Support up to 1GB
- 10GB Ultra ATA hard disk drive
- Slot-loading 24X speed CD-ROM drive
- Built-in 15" CRT (13.8" viewable size)
- Two FireWire and two USB ports
- Apple Pro Keyboard and Pro Mouse



Own  
this iMac  
for as low as  
\$28/month  
with the NEW  
MacMall EZ  
Payment  
Plan!

400MHz iMac

**\$999**

#951066 (Indigo)

#951065 (Ruby)

only

64MB RAM; 10GB Hard Drive; 24X CD-ROM Drive; 56K modem

All new Macs come standard with the Apple® Pro Optical Mouse and the Apple® Pro Keyboard.





## Order Any Item in 4 Easy Steps

1. Go to [www.macmall.com](http://www.macmall.com)
2. Click on "Shopping Cart"
3. Enter part# in "Catalog Express"
4. Click on "Proceed to Checkout"



**macmall.com 1-800-217-9492**

# New iMac DV+

## Now with iMovie 2!

With the iMac DV+, you can slip the latest DVD title into the slot-loading drive and watch it on a brilliant 15" built-in display. And with the new Theater Mode, your viewing experience is positively cinematic, with high-fidelity playback of full-screen video.

### Awsome Performance!

- 450MHz G3 PowerPC processor
- 64MB SDRAM; support up to 1GB
- 20GB Ultra ATA hard disk drive
- Slot-loading 4X DVD-ROM drive
- Built-in 15" CRT (13.8" viewable size)
- ATI RAGE 128 Pro with 8MB of SDRAM
- 10/100Base-T Ethernet (RJ-45)
- Apple Pro Keyboard and Pro Mouse

450MHz iMac DV+

**\$1,294** only #951060 (Indigo)  
#951064 (Sage)  
#951062 (Ruby)

64MB RAM; 20GB Hard Drive; 4X DVD-ROM Drive; 56K modem

Own  
this iMac DV  
for as low as  
**\$37/month**  
with the NEW  
**MacMall EZ  
Payment  
Plan!**

**Call Us Today or Visit  
[www.macmall.com](http://www.macmall.com)  
for Up-to-the-Minute  
Promotions and Deals!**

# The Fastest iMac Ever!

## The NEW iMac DV Special Edition!

For those looking for even more, there's the new iMac DV Special Edition, the fastest, most powerful iMac ever. And it comes with iMovie 2!



Own  
this iMac DV  
Special Edition  
for as low as  
**\$42/month**  
with the NEW  
**MacMall EZ  
Payment  
Plan!**

### Desktop Movie Studio!

- 500MHz G3 PowerPC processor
- 128MB SDRAM; Support up to 1GB
- 30GB Ultra ATA Hard Drive
- Slot-loading 4X speed DVD-ROM drive
- Two FireWire ports and two USB ports
- 10/100Base-T Ethernet
- Built-in 15" CRT (13.8" viewable size);
- Integrated Harman Kardon audio system
- Apple Pro Keyboard and Pro Mouse
- Mac OS 9 ● AppleWorks

500MHz iMac DV

**\$1,494** only

#951063 (Graphite) #950988 (Snow)  
128MB RAM; 30GB Hard Drive; 4X DVD-ROM Drive; 56K modem

**Order Any Time! Open 24 Hours! Order Today by 10pm EST—Get it Tomorrow by 10:30am!**

**macmall.com 1-800-217-9492**

**AOL Keyword: MacMall**

**Mention your Priority Code: #ZMWDOC3**

## Hot Peripherals!

**Palm m100**

Small and light!

only

**\$149<sup>99</sup>**

#951523



**EPSON**



**Stylus® Color  
880 Printer**

only

**\$149<sup>99</sup>**

#951949

**Iomega Zip 100MB  
USB Portable  
Drive**

only

**\$69<sup>99</sup>**

#58759

Mfr. reconditioned.



**Adobe  
Photoshop 6.0**

The world's standard image-creating solution

**New!  
VERSION!**

**Photoshop 6.0**

Delivering more  
power and flexibility  
than ever before!

upgrade today  
for only

**\$178<sup>99</sup>**

#951597

Sys. req.: PPC, 24MB RAM, 30MB HD

## MacMall Exclusive!

**USB Digital Camera  
for only \$79!**

- True 640 x 480 resolution
- Perfect for electronic use
- USB & video connection
- Stores 32 photos
- Built-in flash
- Video enabled
- TV output
- Self-timer



**\$79<sup>99</sup>** only

Call for details!

With any \$200 purchase! (after \$20 mfr. mail-in rebate)  
Hurry, supplies are limited! Price of camera and shipping  
charges do not apply to minimum requirement.

**MacMall**



# MacMall

Everything and Anything  
for Your Mac and More!

**Visit our site!**

✓ Featuring all the new  
products from Apple!



**All This...  
And More!**

- ✓ Fastest overnight delivery!
- ✓ 100% Apple Gold Certified,  
best trained sales staff!
- ✓ \$2 billion in available inventory  
(over 125,000 products)!
- ✓ Custom configuration—we  
will build your CPU to  
your specifications!
- ✓ 1st Authorized Apple Reseller
- ✓ Leasing programs—lease  
anything from one Mac to  
one hundred at truly  
affordable rates!
- ✓ Protect your investment with  
Extended Warranties!

**MacMall EZ  
Payment Plan!**

NEW! Payment terms up to 48 months!

**N**ow you can have low fixed monthly payments on consumer purchases of \$750 or more with the new MacMall EZ Payment Plan. It's fast and easy to apply for, and there are no application fees or prepayment fees. Get your MacMall EZ Payment Plan today, or apply online. You can complete your purchase to just minutes—and have your order on the way!

Financing available on approved credit arranged through MBNA America Bank, N.A. Payment does not include shipping charges and sales taxes if applicable. Estimated monthly payment is based on approximate 48-month term at an Annual Percentage Rate (APR) of 14.99%. Your APR may be higher. There are no transaction fees for MacMall purchases billed directly to your account. There is a transaction fee of 3% of the U.S. Dollar amount of each advance check (write \$5 min/\$30 max), but there is no obligation to use advance checks.

**Upgrades for Your  
Power Mac G4!**

**VIKING  
COMPONENTS**

Have your RAM professionally installed by one of our factory-trained technicians for only \$30. Ask for #2214. Visit our Web site: [macmall.com](http://macmall.com) for more Viking memory. Prices are valid at time of press & are subject to change due to market fluctuations. Please call for most current pricing.

#813179  
#813177  
#813178  
#58576

64MB SDRAM DIMM  
128MB SDRAM DIMM  
256MB SDRAM DIMM  
512MB SDRAM DIMM

\$138<sup>99</sup>  
\$266<sup>99</sup>  
\$507<sup>99</sup>  
\$1,384<sup>99</sup>

## New Power Mac G4 Cube!



New Apple®  
Power Mac G4 Cube

only **\$1,794**  
#951069

The Power Mac G4 Cube is the first computer to come standard with an optical mouse, for precise control on almost any surface. Bring hi-fidelity sound to music with the included Harman Kardon speakers.

Own  
this Power  
Mac G4  
for as low as  
\$50/month  
with the NEW  
MacMall EZ  
Payment  
Plan!



**A**t less than one quarter the size of most PC's, the Power Mac G4 Cube delivers awesome performance. With the power of the Velocity Engine, the G4 processor can calculate over one billion instructions per second! You'll have more than enough power to make Desktop Movies, be a desktop publisher, play 3D games and watch DVD movies right on your monitor!

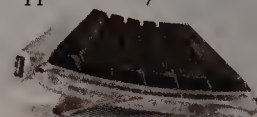
### Virtual Silence

Cooled without a fan, the Power Mac G4 Cube runs in virtual silence. You can truly appreciate the crystal clear audio quality of the Harman Kardon speakers that are included. Bring hi-fidelity sound to music, movies, and games!

### Less Is More!

In another first, the G4 Cube connects to your display in an entirely new way, thanks to a bit of nifty engineering. It's called the Apple Desktop Connector (ADC), and it reduces desktop clutter even further by combining power, video and USB signals on a single slim cable.

All new Macs come standard with the Apple® Pro Optical Mouse and the Apple® Pro Keyboard.



### Outstanding performance

- 450MHz PowerPC G4 processor with Velocity Engine
- 1MB of backside level 2 cache
- 64MB of high-performance memory
- 20GB Ultra ATA/66 hard disk drive
- DVD-ROM drive with DVD-Video playback
- Harman Kardon speaker system
- ATI RAGE 128 Pro graphics card with 16MB of graphics memory, Apple Display Connector, and VGA connector

### Elegant design with a small footprint

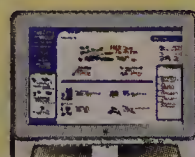
- No-fan cooling system maintains a quiet working environment
- Apple Display Connector for easy display hookup and reduced desktop clutter
- Optical mouse for precision cursor control; works on nearly any surface and features a unique design that makes clicking extremely comfortable

## Advanced Display Technology!

Apple 22" Flat  
Panel Cinema Display  
your price

**\$3,999**

#951070



New 17"  
Apple® Flat  
Screen  
Studio  
Display

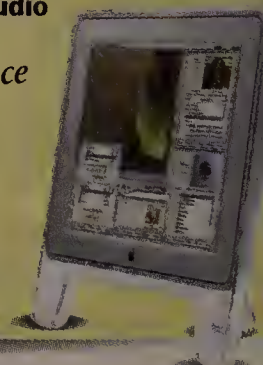
your price  
**\$499** #951071



New Apple 15" Flat  
Panel Studio  
Display  
your price

**\$999**

#950991





## Order Any Item in 4 Easy Steps

1. Go to [www.macmall.com](http://www.macmall.com)
2. Click on "Shopping Cart"
3. Enter part# In "Catalog Express"
4. Click on "Proceed to Checkout"



**macmall.com 1-800-217-9492**

## New Apple Power Mac G4 Available with Dual Processors!

With either single or dual processors, the Power Mac G4 delivers up to twice the fire-power of previous G4 models.

### Supercomputer Performance!

- 450 or 500MHz dual PowerPC G4 processor(s) depending on configuration
- 128 or 256MB of SDRAM
- Supports up to 1.5GB of PC100 SDRAM
- 30 or 40GB Ultra ATA/66 hard drive
- DVD-ROM drive or DVD-RAM drive

New Apple® Power Mac G4

**\$2,494** #950986  
starting at  
Monitor sold separately.



Own this Power Mac G4 for as low as \$70/month with the NEW MacMall EZ Payment Plan!

**Call Us Today or Visit [www.macmall.com](http://www.macmall.com) for Up-to-the-Minute Promotions and Deals!**

Order	MHz	RAM	HD	Cache	Drive	Modem	Networking	Price	or as low as
#950986	(2)450	128MB	30GB	1MB	DVD-ROM	56K	Gigabit Ethernet	\$2,494	\$70/mo*
#952964	(2)500	256MB	40GB	1MB	DVD-ROM	56K	Gigabit Ethernet	\$3,194	\$88/mo*
#951067	(2)500	256MB	40GB	1MB	DVD-RAM	56K	Gigabit Ethernet	\$3,494	\$98/mo*

## Single Processor G4!

The newest version of the Power Mac G4 is also available with a single 400MHz processor. It gives you the features of the dual processor models at a lower price: ATI RAGE 128 Pro graphics card, built-in USB and FireWire,

Apple Pro Mouse and Pro Keyboard—and even Gigabit Ethernet!

- 400MHz PowerPC processor
- 64MB RAM
- 20GB Ultra ATA hard disk
- DVD-ROM drive or DVD-RAM drive
- 10/100/1000Base-T Ethernet
- Apple Pro Keyboard and Pro Mouse

Single Processor G4

**\$1,594** #951068  
starting at

Own this Power Mac G4 for as low as \$45/month with the NEW MacMall EZ Payment Plan! Call for even lower prices!



Monitor sold separately.

Order	MHz	RAM	HD	Cache	Drive	Modem	Networking	Price	or as low as
#951068	(1)400	64MB	20GB	1MB	DVD-ROM	56K	Gigabit Ethernet	\$1,594	\$45/mo*

Order Any Time! Open 24 Hours! Order Today by 10pm EST—Get it Tomorrow by 10:30am!

**macmall.com 1-800-217-9492**

AOL Keyword: MacMall **Mention your Priority Code: #ZMWDOC3**

## Hot Peripherals!

DCR-TRV20 Digital Camera

**SONY**



only **\$1,699** #80282 Call for details!

harman/kardon

**Soundstick 3-Piece USB Speakers**



only **\$198<sup>99</sup>** #952775

LaCie 8x4x32 External FireWire CD-RW Drive

**LACIE**



only **\$349<sup>99</sup>** #56665

#52201 Toast 4 Deluxe \$79<sup>99</sup>

## Microsoft Office 2001!



**Now Available!**

All the essentials. Made easy. Made for the Mac. upgrade for only

**\$254<sup>99</sup>** #849861

#849799 Microsoft Office 2001 (Full Version) \$425<sup>99</sup>

## MacMall Exclusive!

**USB Digital Camera for only \$79!**

- True 640 x 480 resolution
- Perfect for electronic use
- USB & video connection
- Stores 32 photos
- Built-in flash
- Video enabled
- TV output
- Self-timer



only **\$79<sup>99</sup>** Call for details!

With any \$200 purchase! (after \$20 mfr. mail-in rebate) Hurry, supplies are limited! Price of camera and shipping charges do not apply to minimum requirement.

**MacMall**



#57816	64MB SDRAM DIMM	\$147 <sup>99</sup>
#57817	128MB SDRAM DIMM	\$283 <sup>99</sup>
#57818	256MB SDRAM DIMM	\$856 <sup>99</sup>

## Hot Peripherals!



**Internal Zip Drive  
for 1999 and  
New 2000 Model  
PowerBook G3s**

only  
**\$199<sup>99</sup>**  
#57669  
with CPU purchase.



**Newer  
FireWire 2Go**

only  
**\$138<sup>99</sup>**  
#48032



**PowerBook G3  
Battery (Apple)**

only  
**\$149<sup>99</sup>**  
#47086

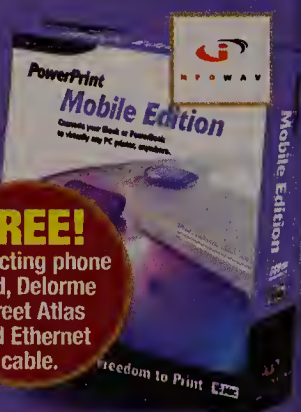


**PowerPrint  
Mobile  
Edition**

Print to any printer  
on the road!

only  
**\$99<sup>99</sup>**  
#76252

**FREE!**  
Retracting phone  
cord, Delorme  
Street Atlas  
and Ethernet  
cable.



**HP DeskJet 350C  
Portable Printer**

only  
**\$269<sup>99</sup>**  
#61359



# New Model PowerBooks!

## Speeds up to 500MHz!

With up to 20GB storage capacity, the PowerPC G3 processor delivering speeds of up to 500MHz, plus room for up to 512MB of RAM and 3D graphics acceleration, the new PowerBook packs a tremendous wallop! Outstanding performance and stunning design!

### Processor and Memory

- PowerPC G3 processors up to 500MHz
- 1MB backside level 2 cache
- Up to 10 hours of battery life through dual lithium-ion battery capability (requires additional battery)
- 64 or 128MB SDRAM standard with support for up to 512MB
- Fast Ultra ATA/66 hard drive up to 20GB

### Wired & wireless communications

- Support for AirPort wireless networking with built-in antenna and card slot
- Built-in 56K modem with V.90
- Built-in 10/100BASE-T Ethernet

**Own this  
PowerBook  
for as low as  
\$70/month  
with the NEW  
MacMall EZ  
Payment Plan!**

New PowerBook® G3 Series

**\$2,494** #952730

starting at  
or as low as **\$70/month** with the  
**NEW MacMall EZ Payment Plan!**

### Desktop movies to go

- Easy-to-use iMovie 2 software included
- Two FireWire ports
- 14.1" display with 8MB of video RAM
- Support for dual-display mode

### Versatile expandability

- Hot-swappable expansion bay for hard drive, DVD, Zip or SuperDisk drive
- 5.7 lbs. (6.1 lbs. with battery and DVD)

Order	MHz	RAM	HD	Cache	Drive	Modem	Networking	Price	or as low as
#952730	400	64MB	10GB	1MB	DVD-ROM	56K	10/100Base-T	\$2,494	\$70/mo*
#952731	500	128MB	20GB	1MB	DVD-ROM	56K	10/100Base-T	\$3,494	\$98/mo*

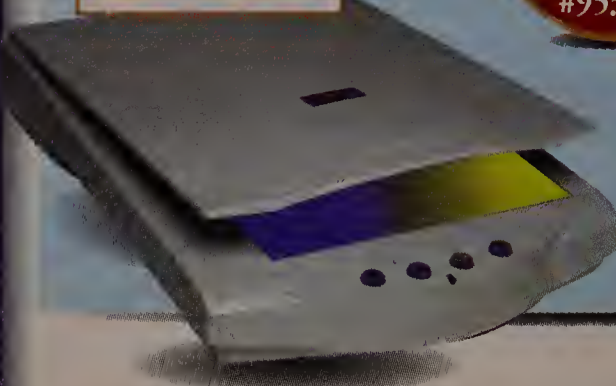
# FREE Printer Offer!

Buy one Umax Astra 3400 Scanner and get a Lexmark Z22 printer FREE!

### Astra 3400 Features:

- 600 x 1200dpi; 9600dpi max.
- 42-bit internal color
- 8.5" x 11.7" max. scan area

**UMAX®**



**both  
for only  
\$99<sup>99</sup>†**  
#953258

**LEXMARK®**



### Z22 Printer Features:

- Up to 1200 x 2400 dpi resolution
- Up to 6.5 ppm; 3.5 ppm color
- Thermal inkjet technology
- USB and parallel interface

†Price after rebate. \*Printer free after \$80 mfr. mail-in rebate.



## Order Any Item in 4 Easy Steps

1. Go to [www.macmall.com](http://www.macmall.com)
2. Click on "Shopping Cart"
3. Enter part# in "Catalog Express"
4. Click on "Proceed to Checkout"

**CATALOG EXPRESS**

**macmall.com 1-800-217-9492**

# New iBooks up to 466Mhz!

## The iMac To Go Now Has Movies To Go!

The new Indigo iBook's hard disk capacity has grown 60% to 10GB. That extra disk space will come in handy for making your own desktop movies with iMovie 2!

### Outrageous Performance!

- 366MHz PowerPC G3 processor
- 64MB SDRAM; exp. to 320MB
- 10GB Ultra ATA hard disk
- 24X CD-ROM
- 12.1" TFT active-matrix display

366Mhz Indigo iBook

**\$1,494**

now only

#952732 Indigo or as low as **\$45/month** with the **NEW MacMall EZ Payment Plan!**



**Own this iBook for as low as \$45/month with the NEW MacMall EZ Payment Plan!**



**For Up-to-the-Minute Promotions, Call or Visit [www.macmall.com](http://www.macmall.com) Today!**

## The New iBook Special Edition!

Now with DVD!

Looking for top performance? Check out the iBook Special Edition!

### The Fastest iBook!

- 466MHz PowerPC G3 processor
- 64MB of SDRAM; supports to 320MB
- 10GB hard disk ● 6X DVD-ROM

466MHz iBook Special Edition with DVD

**\$1,794**

only #952733

or as low as **\$50/month** with the **NEW MacMall EZ Payment Plan!**

Order Any Time! Open 24 Hours! Order Today by 10pm EST—Get It Tomorrow by 10:30am!

**macmall.com 1-800-217-9492**

AOL Keyword: MacMall **Mention your Priority Code: #ZMWDOC3**



**FREE Battery!**

with purchase of iBook SE Graphite! Ask for Item #49219. While supplies last.

The DVD-ROM drive lets you watch movies on either the iBook screen or on a standard television!

## Hot Peripherals!

**Diamond Rio 500**

only **\$251<sup>99</sup>**

#51368



**KEYSPAN**

**Digital Media Remote**

only **\$49<sup>99</sup>**

#51342



**Par Technology Kritter USB Camera**

only **\$98<sup>99</sup>**

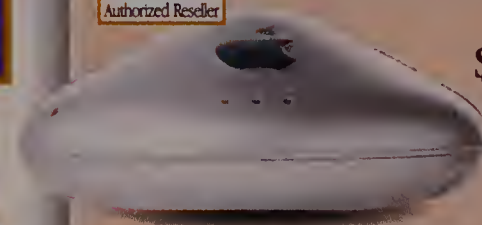
#56642



**Airport Base Station**

only **\$294**

#57373



#57369 Airport Card

\$99<sup>99</sup>

**Quicken 2001 Deluxe**

Packed with great features for easier financial management!

only **\$39<sup>95</sup>**

#849561

After \$20 mfr. mail-in upgrade rebate.

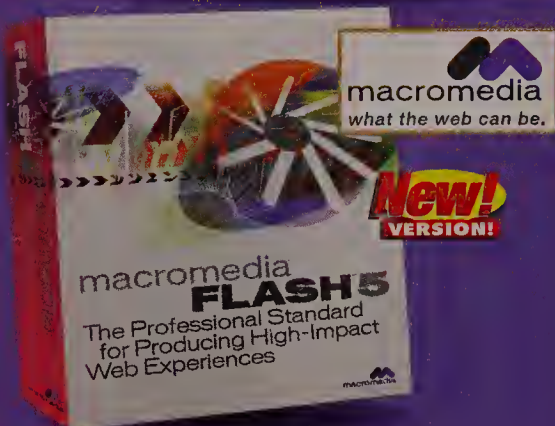


**MacMall**





## NEW from Macromedia!



### Flash 5 Upgrade

Design and deliver distinctive, low bandwidth Web sites with Macromedia® Flash™ 5, the standard for creating high-impact Web experiences, used by over half a million Web authors worldwide.

upgrade for only **\$139<sup>99</sup>** #950401

### New! Flash 5 FreeHand 9 Studio Upgrade

Design graphics and site concepts in FreeHand, using industry-leading creative tools, including 3D perspective grids and vector transparency. Then integrate into Flash, fusing vectors, bitmaps, motion, MP3 audio, form input and interactivity.



upgrade for only **\$239<sup>99</sup>** #950405

### Dreamweaver 3 Fireworks 3 Studio Upgrade

Dreamweaver streamlines workflow with reusable templates, design notes, improved site management and convenient FTP uploads. Fireworks 3 lets you design fully editable Web graphics, animations and comps in an instant!

upgrade for only **\$229<sup>99</sup>** #52699



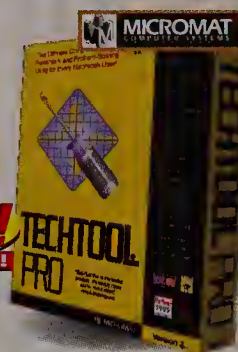
### Dreamweaver UltraDev

Develop ASP, JSP and CFML Web applications in one visual environment.  
**special offer only**  
**\$279<sup>99</sup>** #59233  
Available for Dreamweaver 3 customers only.

### Techtool Pro 3.0

No other program tests as many different aspects of your Macintosh as thoroughly as Techtool Pro 3.0. The key to maintaining a healthy Mac is to install before you have problems!

**only \$89<sup>99</sup>** #30489



### ViaVoice for Mac, Enhanced Edition

The most advanced speech recognition technology ever! Includes an innovative, Plug-n-Play, USB microphone!

**only \$124<sup>99</sup>** #841920

### The Sims

Build a simulated neighborhood and run or ruin the lives of the people that live there! The fate of a Sim, for better or worse, rests in your hands.

**only \$44<sup>90</sup>** #82299



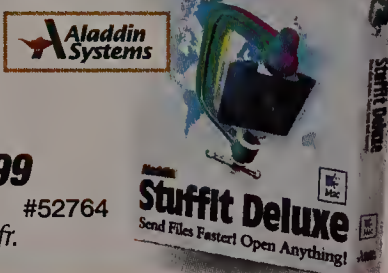
**Mac OS 9.0.4**  
Make your Mac more powerful and more Internet-friendly than ever. Improves audio, video and graphics performance & more!

**only \$89<sup>99</sup>** #74850  
Sys Req: Power PC, 32MB RAM, 140MB HD Space

### Stuffit Deluxe 5.5

Open virtually all compressed files on the Internet. Send files faster!

**only \$47<sup>99</sup>** #52764  
Price after \$25 mfr. mail-in rebate.



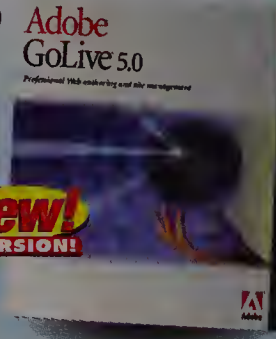
### MacMall Exclusive!

**Stuffit Deluxe 5.5 and Disk Warrior 2.0 Bundle**  
MacMall Exclusive!  
**\$89<sup>99</sup>** #60880  
Save over \$43 on these powerful Mac utilities when you buy this bundle.

### Adobe GoLive 5.0

Industrial-strength Web design, production and management for professional, dynamic, database-driven Web sites!

upgrade only **\$99<sup>99</sup>** #950150



### Illustrator 9.0

The standard in vector graphics creation software just got better!

upgrade for only **\$139<sup>99</sup>** #58042  
#58038 Illustrator 9.0 Full version \$389<sup>99</sup>

### Diablo 2

Return to a dark world plagued by evil forces. Face a new series of quests to rid the world of Diablo and his vile brethren forever.

**only \$49<sup>99</sup>** #951075



### FileMaker Pro Upgrade

Manage your data from desktop to Web! as low as

**\$89<sup>99</sup>** #812611  
After \$50 mail-in rebate.  
Sys Req: Mac OS 7.6.1 or later, 16MB RAM, 24MB HD

### Blowout Offers Under \$5!

#### Myst

This hauntingly beautiful game features stunning 3D photorealistic graphics, a compelling storyline, and mind-bending puzzles!

**\$3<sup>99</sup>** #41903  
Shipped in promotional packaging.

#### Broderbund



#### Aztech



### Sim Tower and Brain Dead 13 Bundle!

**\$3<sup>99</sup>** #43712  
Shipped in promotional packaging. While supplies last.



## Order Any Item in 4 Easy Steps

1. Go to [www.macmall.com](http://www.macmall.com)
2. Click on "Shopping Cart"
3. Enter part# in "Catalog Express"
4. Click on "Proceed to Checkout"

CATALOG  
**EXPRESS**

**macmall.com 1-800-217-9492**

## Accessories

## The Best Prices on USB and FireWire Peripherals for the iMac™, iBook™, PowerBook G3, Power Mac G3 and G4!

### Stylus® Color 880 Printer

- 12ppm black, 9ppm color
- 2880x720dpi

EPSON

**\$149<sup>99</sup>**

#951949

### Stylus® Color 980 Printer

- 13ppm black, 10.5ppm color

EPSON

**\$249<sup>99</sup>**

#951946

### Lexmark Optra E312L USB Laser Printer

- 10ppm
- Parallel and USB connectivity

LEXMARK

**\$293<sup>99</sup>**

#951500

### OfficeJet G85 Printer, Scanner, Copier, Fax All-in-One!

- 12ppm black, 10ppm color
- 36-bit color scan

hp

**\$799<sup>99</sup>**

#63480

### 4 Port USB Hub

Provides instant expandability that is as simple as plugging in a USB connector!

**\$24<sup>99</sup>**

#54763

### WACOM Intuos 6"x8" Special Edition Tablet

Includes cordless mouse and pressure sensitive pen

**\$309<sup>99</sup>**

#950761

### Que! 12x10x32 FireWire CD-RW Drive

**\$389<sup>99</sup>**

#951639

### Astra 3450 Color Scanner

42-bit color

**\$139<sup>99</sup>**

#88039

### D-360L Digital Camera

- 1280 x 960 resolution
- 8MB SmartMedia card

**\$299<sup>99</sup>**

#57140

OLYMPUS

### Coolpix 880 Digital Camera

- 3.34 Megapixel CCD
- 3X Zoom-Nikkor lens, plus 4X stepless digital zoom
- One year warranty
- USB interface

**\$799<sup>95</sup>**

#952107

Nikon

### DC280 Digital Kodak Zoom

- 2 Megapixel
- 1760 x 1168 resolution
- USB Interface

**\$599<sup>99</sup>**

#49201

Kodak

### Expression 1600 Professional

- 1600 x 3200dpi
- 36-bit color
- USB connectivity

**\$1,099<sup>99</sup>**

#54992

EPSON

### ISub Subwoofer for iMac DV

- Handles low frequencies between 42Hz and 200Hz
- Attaches via USB

**\$99<sup>99</sup>**

#60088

### LaCie 8x4x32 FireWire CD-RW Drive

**\$349<sup>99</sup>**

#56665

Best Seller!

### NEW! External USB Floppy Drive with Color Panels

Hot swappable USB interface; no AC adapter required

**\$82<sup>99</sup>**

#54835

### 100MB Color Zip 12-Pack with FREE ZipMedia Wallet!

Color code your data with colored Zip disks!

**\$99<sup>95</sup>**

#952985

iomega

## Great Peripheral Deals for Your Serial and SCSI Macs!

### LaCie External 12x4x32 SCSI CD-RW Drive!

Create your own music or data CDs.

- 12X record speed
- 2MB data buffer

**\$329<sup>99</sup>**

#54003

LACIE

### Astra 2200 Scanner

- 600 x 1200dpi
- 36-bit color
- USB interface

**\$119<sup>99</sup>**

#49245

### Epson Stylus Color 3000 Printer

- Present full-bleed 13" x 19" designs at 1440 x 720dpi
- Includes Adobe PostScript L2
- Optional internal Ethernet, Mac & PC

**\$899**

#43863

Mfr. reconditioned.

While Supplies Last!

1 YEAR WARRANTY

### Epson Stylus 850 Printer!

- 9ppm black, 7ppm color
- Serial interface

**\$139<sup>99</sup>**

#53492

Mfr. reconditioned.

### iomega® Zip® 250MB External SCSI Drive

**\$149<sup>99</sup>**

#41332

iomega

Order Any Time! Open 24 Hours! Order Today by 10pm EST—Get it Tomorrow by 10:30am!

**macmall.com 1-800-217-9492**

AOL Keyword: MacMall

Mention your Priority Code: **#ZMWDOC3**

**MacMall**



**GREAT  
GIFT IDEA!**



Apple® iMac™  
Starting At  
**\$794<sup>98</sup>**

## New Optical Mouse

Has no mouseball or rollers to clean, needs no mousepad and has a unique, full-surface button.



## Apple Pro Keyboard.

Features full-size 108-key layout, plus an all-new media eject button and two-port USB hub.

**AppleCare**  
iMac Protection Plan  
**\$148<sup>96</sup>** #722602

## An iMac for every user.

For the Internet beginner on a budget or the power-user who demands the best, the new iMac line is sure to have what you want: Great, new colors; models priced to fit your budget; faster processors; more memory, expandable to a full gig; bigger hard drives;

beefed up 3D graphics; simply more of everything. Plus, every iMac now comes with a full-sized keyboard and a nifty, maintenance-free optical mouse – plus the Harman Kardon Odyssey audio system and quiet, fanless operation that helped make iMacs famous.

## Go wireless.

With optional Apple AirPort technology, you can put your household on a wireless network. Surf the Internet through a solid brick wall or play multiplayer games with someone down the hall!

Base Station #115919 **\$294.98**  
AirPort Card #115920 **\$99.98**

## Capture the holidays with digital video!

Convert your old videos to digital via the analog line-in!

Canon ZR10  
Digital Video Camcorder

**\$899<sup>99</sup>**

#117041 Call for price

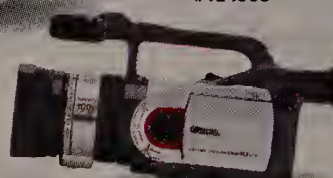


Better color and finer tones than ordinary DV!

Canon Elura 2 MC  
Digital Video Camcorder

**\$1599<sup>99</sup>**

#124368



3 sensors for phenomenal resolution and color!

Canon GL1 3CCD  
Digital Video Camcorder

**\$2499<sup>99</sup>**

#111853 Call for price



"Film editing software so intuitive that it doesn't have a manual, or need one."

— Chris Taylor, TIME.co

Shoot brighter, sharper video even in the dark!

Sony DCR-TRV900  
Digital Video Camcorder

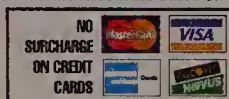
**\$2299<sup>97</sup>**

#111848

Pick a **NEW** iMac that's right for you!

Model	Processor	HD	RAM	Optical Drive	USB	FireWire	AirPort Ready	External Video	Shopping Spree	OR FREE Memory	Item #	ONLY	Lease*
Indigo/350	350MHz	7.0GB	64MB	CD	2 ports	No	No	No	—	—	#124912	<b>\$794.98</b>	—
Indigo DV	400MHz	10.0GB	64MB	CD	2 ports	2 ports	Yes	Yes	—	—	#124913	<b>\$994.98</b>	—
Ruby DV	400MHz	10.0GB	64MB	CD	2 ports	2 ports	Yes	Yes	—	—	#124914	<b>\$994.98</b>	—
Indigo DV+	450MHz	20.0GB	64MB	DVD	2 ports	2 ports	Yes	Yes	\$100	64MB	#124915	<b>\$1294.98</b>	\$46
Ruby DV+	450MHz	20.0GB	64MB	DVD	2 ports	2 ports	Yes	Yes	\$100	64MB	#124916	<b>\$1294.98</b>	\$46
Sage DV+	450MHz	20.0GB	64MB	DVD	2 ports	2 ports	Yes	Yes	\$100	64MB	#124917	<b>\$1294.98</b>	\$46
Graphite DV SE	500MHz	30.0GB	128MB	DVD	2 ports	2 ports	Yes	Yes	\$100	64MB	#124918	<b>\$1494.98</b>	\$53
Snow DV SE	500MHz	30.0GB	128MB	DVD	2 ports	2 ports	Yes	Yes	\$100	64MB	#124919	<b>\$1494.98</b>	\$53

\*Business Lease: 36-month, fair-market value lease based on approved credit. Other leasing options available. Leases require a minimum order of \$1000. Call 1-800-611-9751 for details.



Credit cards are not charged until the order is shipped. Most products ship the same day (barring system failure, etc.). Shipping options include Ground, 2nd Day and Overnight delivery. Freight is based on average product weight. Handling extra. Insurance available. Special orders may require special shipping and handling charges. Call for international shipping rates. Prices and product availability subject to change without notice. Specials and promotions may be limited to stock on hand. Not responsible for typographical errors. All products sold by Multiple Zones International (MZI) are third party products and are subject to the warranties & representations of the applicable manufacturer, including but not limited to Y2K compliance. Accordingly, MZI makes no representation or warranty with respect to Y2K compliance of product sold. ©2000 Multiple Zones International Inc. All rights reserved. Unauthorized duplication is a violation of applicable laws. Apple®, the Apple logo, Macintosh® and PowerBook® are registered trademarks of the Apple Computer, Inc.

## Upgrade Your iMac or iBook

For iMac 350/400MHz		
Value RAM BY KINGSTON	#674339	64MB \$69.99
	#123842	128MB \$149.99
	#715574	256MB \$349.99
For iBook		
	#674337	32MB \$39.99
	#715586	64MB \$79.99

\*After \$15 mfr. mail-in rebate. Low Zone price: \$84.99. \*\*After \$15 mfr. mail-in rebate. Low Zone price: \$94.99. †After \$20 mfr. rebate. Low Zone price: \$169.99. ††After \$30 mfr. rebate. Low Zone price: \$379.99. Offer expires 10/31/00.



# Gifts at Mac Zone!

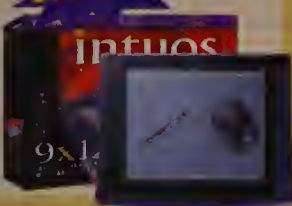
## Cool iMac Stuff

Deep, rich bass  
sound for CDs,  
games & DVD!  
Barman Kardon  
Sub Subwoofer

**Cool  
Look,  
Big  
Sound!**

**NEW!**

Now in graphite!  
iMac Special Edition  
12 USB Tablet with  
D Mouse



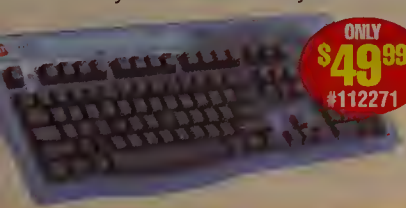
## Input & Output

**NEW!**

Fast, comfortable  
control at your  
fingertips!

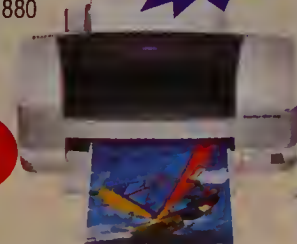
Kensington  
TurboRing™ Trackball

Full-size, soft-touch  
for comfort and control!  
MacALLY iKey USB Extended Keyboard



12 ppm Fast -  
2880x720 dpi!  
Epson Stylus 880  
InkJet Printer

**NEW!**



**Zones Exclusive!**  
UMAX 6400



## Microsoft®

The most Mac-like  
Office ever made!

**NEW!**  
Office 2001  
upgrade  
Order today!

Office:mac  
2001

Microsoft  
Office 2001 Upgrade

**Your  
Choice!**

**Mac Zone  
Exclusive!**

**\$100**

Instant Shopping Spree

**OR**

**FREE**  
**64MB**  
Memory  
\$80 VALUE

Offers subject to change.  
While supplies last.

**Now Available!**

**Quicken**  
2001 deluxe

**Quicken**  
2001

#727334 **\$39.99\***

\* After \$20 mfr. mail-in upgrade  
rebate. Low Zone price \$59.99.

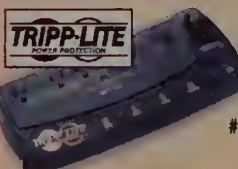


**\$50 Rebate**

**IBM ViaVoice**  
Enhanced  
Edition **\$79.99\***  
#122778

\* After \$50 mfr. mail-in upgrade rebate. For owners  
of Millennium Edition only. Low Zone price \$129.99.  
Offer good through 1/15/01.

**iUPS Power Surge Protection**



and 11 minutes  
of back-up  
battery power

#111999 **\$79.99**



**Star Trek  
Voyager  
Elite Force**

**ONLY**  
**\$49.99**  
#741352

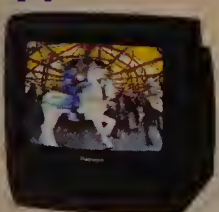
## Electronics @ Zones [www.zones.com/electronics](http://www.zones.com/electronics)

Where you can find all this, plus TVs, VCRs, stereos and more!

### Executive TV

Panasonic  
13" TV/4-Head  
VCR Combo

**ONLY**  
**\$239.99**  
#122029



### Executive Stereo

JVC FS-SD9  
Mini System

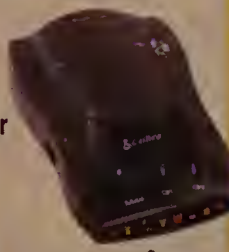
**ONLY**  
**\$399.99**  
#117092



### Radar

Cobra 9000  
9-Band Radar  
Detector  
with StrobeAlert™

**ONLY**  
**\$99.99**  
#117186



### Radios

Motorola  
TA289  
2-way Radio

**ONLY**  
**\$89.99**  
#122012



### Personal

Panasonic  
SL-SW880K  
Shockwave  
CD Player  
with Brainshaker  
Headphones

**ONLY**  
**\$169.99**  
#124320



### Phones

Panasonic  
2.4GHz DDS  
Cordless  
Phone

**ONLY**  
**\$159.99**  
#122022



### Top Games!

	Item #	ONLY
The Sims	#702664	\$44.99
Madden NFL 2000	#111576	\$19.99
Scrabble	#735107	\$29.99
Baldur's Gate	#625850	\$44.99
Age of Empires	#111565	\$29.99
Tomb Raider III	#111573	\$29.99
The Big Kahuna	#108263	\$49.99
SimCity 3000	#111560	\$44.99
Myth: The Total Codex V1.0	#662611	\$19.99
Scary Movie Trivia	#735001	\$19.99
Total Annihilation Gold	#111567	\$34.99
ChessMaster 6000	#653212	\$34.99
Quake III Arena	#112118	\$46.99
Unreal Tournament	#111907	\$44.99
Bugdom 3D for the Family	#114493	\$29.99
Mac Fun Pack	#675767	\$19.99
Deus Ex	#701823	\$49.99

Corporate bids welcome!  
Call to 1-888-239-2591

ASDAQ® COMPANY Ticker Symbol: MZON

Source Code  
**MW120**

Order by Phone

**1.800.436.0606**

Order Online Today

**www.maczone.com**

www.macworld.com December 2000 143



**Microsoft®**

**NEW!**  
Office 2001  
upgrade  
Order today!

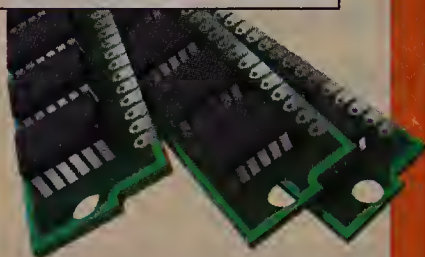
Office:mac  
2001

ONLY  
**\$259<sup>99</sup>**  
#729141

- More Mac-like than ever
- New from the ground up
- Compatible with Office 97/98/2000 and AppleWorks 6
- Powerful and easy to use

**Upgrade your iBook!**

**Value RAM™**  
BY KINGSTON



**For iBook**

#715586	64MB	\$79 <sup>99</sup> **
#116657	128MB	\$179 <sup>99</sup>

\*\*After \$15 mfr. mail-in rebate. Low Zone price. \$94.99. Offer expires 10/31/00.

**Choose the color that suits your mood!**

**WACOM**

Graphire  
Tablet

ONLY  
**\$99<sup>99</sup>**  
#121927

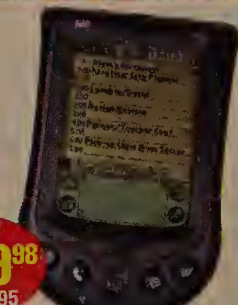


**NEW Low Price!**

**palm**

Palm m100

ONLY  
**\$149<sup>98</sup>**  
#123695



**NEW!**

Apple® iBook™ SE™

**466MHz G3!**

**10GB hard drive!**

- FireWire Port!
- DVD-ROM drive!
- A/V output!
- Graphite color!
- Snow accents!
- iMovie 2!



**AppleCare**

iBook Protection Plan

**\$229<sup>96</sup>**  
#722603

**iBook,  
the next generation.**

The new iBooks look great. And each comes with a faster CPU, bigger hard drive, 8MB ATI RAGE Mobility Card, a FireWire port and an A/V port for connecting the iBooks to a big screen TV and your stereo speakers. So, now you can enjoy creating and sharing iMovies, playing the latest 3D games, and more.

**NEW!**

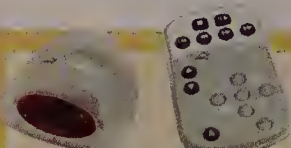
**366MHz G3  
10GB HD!**



- FireWire Port!
- A/V output!
- Indigo color! Snow accents!
- iMovie 2!

Processor	Hard Drive	RAM	On-chip Cache	Optical Drive	Ethernet Ports	Modem	Shopping Spree	OR FREE Memory	Item #	ONLY
iBook 366MHz	10.0GB Ultra ATA	64MB	256K	24X CD-ROM	10/100BT	USB/FW	56K	\$100	64MB	#124939 \$1494.
iBook SE 466MHz	10.0GB Ultra ATA	64MB	256K	6X DVD-ROM	10/100BT	USB/FW	56K	\$100	64MB	#124940 \$1794.

Business Lease Available: 36-month, fair-market value lease based on approved credit. Other leasing options available. Leases require a minimum order of \$1000. Call 1-800-611-9751 for details.



**USB to IR remote control for DVD, CD, QuickTime or MP3 Player!**

Keyspan Media Remote

ONLY  
**\$49<sup>99</sup>**  
#111113

**NEW Controller card supports 4 internal hard drives!**

Sonnet Tempo Card



ONLY  
**\$99<sup>99</sup>**  
#119180

**Awesome NEW wireless technology!**

**macally.**



Wireless USB Keyboard

ONLY  
**\$124<sup>99</sup>**  
#122000

**Go Wireless!**

ONLY  
**\$294<sup>98</sup>**  
#115919

**AirPort Base Station**

- Surf the Net or network wirelessly\*
- Up to 150' range lets you and the iBook roam around the home or classroom

#115920 AirPort Card . \$99.

\*Requires the AirPort Card, Base Station and a computer that is AirPort Card ready.



**Take your camera everywhere!**

LowePro Digital Camcorder Case  
Go to **maczone.com** for more selections.

ONLY  
**\$29<sup>99</sup>**  
#109827

**Great for iBook users!**



Mace Optical Mouse Jr.

ONLY  
**\$34<sup>99</sup>**  
#121998



**Perfect for the iBook or 14" screen notebooks!**

Targus LapPac 5 Carrying Case

ONLY  
**\$59<sup>99</sup>**  
#503773

Credit cards are not charged until the order is shipped. Most products ship the same day (barring system failure, etc.). Shipping options include Ground, 2nd Day and Overnight delivery. Freight is based on average product weight. Handling extra. Insurance available. Special orders may require special shipping and handling charges. Call for international shipping rates. Prices and product availability subject to change without notice. Specials and promotions may be limited to stock on hand. Not responsible for typographical errors. All products sold by Multiple Zones International (MZI) are third party products and are subject to the warranties & representations of the applicable manufacturer including but not limited to Y2K compliance. Accordingly, MZI makes no representation or warranty with respect to Y2K compliance of product sold. ©2000 Multiple Zones International Inc. All rights reserved. Unauthorized duplication is a violation of applicable laws. Apple®, the Apple logo, Macintosh® and PowerBook® are registered trademarks of the Apple Computer, Inc.



# Extreme iBook here!

## SONY Capture it digitally!

10X optical zoom!



ONLY  
**\$499<sup>99</sup>**  
#617980

Sony Mavica MVC-FD73 Digital Camera

Store images on 3" CD-R discs!



ONLY  
**\$299<sup>99</sup>**  
#124357

Sony Mavica MVC-CD1000 CD Camera

Get high-quality photos!  
3X optical zoom!

ONLY  
**\$499<sup>99</sup>**  
#117019



Sony Cybershot DSC-S30 Digital Camera

Pro-quality digital  
SLR camera!



Sony Cybershot DSC-D770 Digital Pro Camera

ONLY  
**\$999<sup>99</sup>**  
#656055



**\$30**  
Price Drop!

ONLY  
**\$89<sup>99</sup>**  
#95251

Easy-to-use storage!  
Iomega Zip® 100 Portable USB Drive



ONLY  
**\$89<sup>99</sup>**  
#99496

Add an  
external SCSI port  
to your new Power Mac!  
Adaptec Internal SCSI Card

**Mac Zone Exclusive!**  
**\$100**  
Instant Shopping Spree



**FREE**  
**64MB**  
Memory  
\$80 VALUE

Offers subject to change.  
While supplies last.



**Now Available!**

**Quicken 2001**  
#727334 **\$39<sup>99</sup>\***

\* After \$20 mfr. mail-in upgrade rebate.  
Low Zone Price: \$59.99.



**HOT, HOT Game!**

**Diablo II for Mac**  
#117284 **\$54<sup>99</sup>**



**\$50 REBATE**

**FileMaker Pro 5.0 Upgrade**  
#656948 **\$89<sup>99</sup>\***

\* After \$50 mfr. mail-in upgrade rebate. Low Zone Price: \$139.99. Offer good through 12/31/00.



**\$50 REBATE**

**IBM ViaVoice Enhanced Edition 2.0**  
#122778 **\$79<sup>99</sup>\***

\* After \$50 mfr. mail-in upgrade rebate. For owners of Millennium Edition only. Low Zone Price: \$129.99. Offer good through 1/15/01.



**\$10 Rebate!**

**Print Explosion**  
#104517 **\$39<sup>95</sup>\***

\* After \$10 Mfr. mail-in Competitive upgrade rebate. Low Zone price \$49.95.

## Best Selling 17" Monitors!



70 17" Color  
5" viewable)  
**\$279<sup>99</sup>**  
#686106



FE700 17" Color  
(16" viewable)  
**\$279<sup>99</sup>**  
#661363



Apple 17" Studio Display  
(16" viewable)  
**\$494<sup>98</sup>**  
#124923

Design and print labels for  
CDs, jewel case  
ray liners and  
book covers!



ONLY  
**\$19<sup>99</sup>**  
#625906

CD/DVD Labeler Kit

Stores an hour  
of MP3 tunes!

to 600 for Mac  
NEW! USB MP3

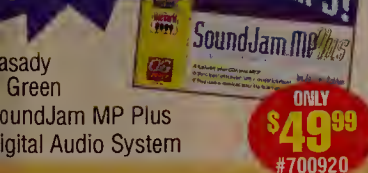
USB

ONLY  
**\$169<sup>99</sup>**  
#701451



**MP3!**  
Player

**MP3**  
Converter  
& Player!



asady  
Green  
oundJam MP Plus  
igital Audio System

ONLY  
**\$49<sup>99</sup>**  
#700920



**Great iBook Printer!**

ONLY  
**\$339<sup>98</sup>**  
#122560

**Robust mobile printer!**  
HP DeskJet 350C Portable Printer  
Includes USB-to-Parallel Adapter  
and Cable.

**Unbelievable quality at an incredible price!**

HP Color DeskJet 935C Printer

ONLY  
**\$199<sup>99</sup>**  
#117397



**Fast!**  
9ppm (black)



**High-speed, network-ready printer!**  
HP 4050N LaserJet Printer

ONLY  
**\$1249<sup>97</sup>\***  
#617964

**\$200 Rebate!**

\* After \$200 mfr. mail-in rebate. Low Zones price \$1449.97. Expires 10/31/00.

**EPSON**

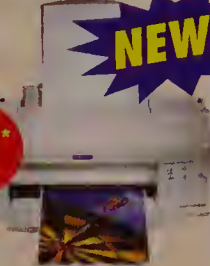
**Built-in PCMCIA card reader!**

Stylus Photo 875DC Printer

\* SAVE \$100 when purchased with any digital camera. Low Zone Price: \$299.99. Offer expires 12/31/00.

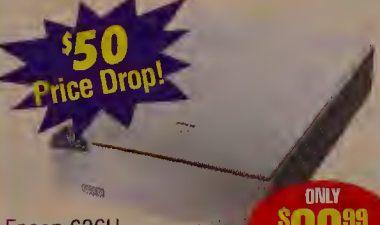
**2880x720dpi, 13ppm fast!**

ONLY  
**\$199<sup>99</sup>\***  
#693295



Epson Stylus 980

\* After \$50 mfr. mail-in rebate. Low Zone Price: \$249.99. Offer expires 12/31/00.



Epson 636U Perfection USB Scanner

ONLY  
**\$99<sup>99</sup>**  
#107811

Corporate bids welcome!  
x to 1-888-239-2591

NASDAQ COMPANY Ticker Symbol: MZON

Source Code  
**MW120**

Order by Phone  
**1.800.436.0606**

Order Online Today  
**www.maczone.com**

www.macworld.com December 2000 145





**Office 2001 Upgrade!**

**Office:mac**  
2001

**ONLY \$259<sup>99</sup>**  
#729141

## Top 5 Reasons to Upgrade:

- 1 Built from the ground up for Macintosh!
- 2 Complete compatibility with Office 97/2000, Windows and Office 98!
- 3 Seamless integration with FileMaker for database work!
- 4 NEW Entourage for information management!
- 5 Easier than ever to get the results you want!

**Get professional video results!**

**Final Cut Pro Certified!**



Canon GL1 Digital Camcorder

**\$249<sup>99</sup>**  
Call for Price #111853

**3.34 Megapixel for the highest quality resolution!**



Olympus C-3000Z Digital Camera

**ONLY \$799<sup>99</sup>**  
#699211

**The power-user's inkJet!**



**ONLY \$399<sup>99</sup>**  
#110974

HP 970Cse

**High-speed, versatile workgroup printing!**



**ONLY \$1449<sup>98</sup>**  
#617964

HP LaserJet 4050N

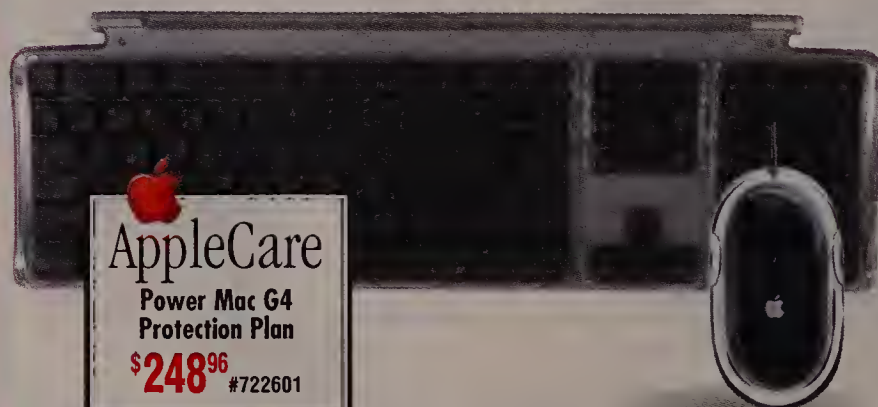
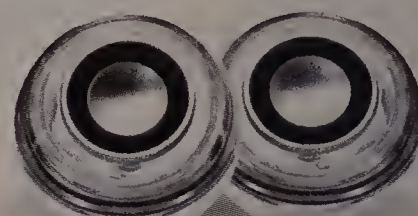


## Power Mac G4 Cube™ **Big smallness.**

One fourth the size of most desktop PCs, the G4 Cube lets you do more in less time – and gives you back a good chunk of your desktop real estate for other uses. While the dimensions of the Power Mac G4 Cube are small, the G4 Cube's full complement of high-performance hardware gives you the raw power you need for any computer task. Achieve your goals more quickly and more easily in such demanding applications as desktop publishing, editing digital video, playing ultra-realistic 3D games and/or scientific research. Order the Power Mac G4 Cube – the biggest little computer – today!

## Sound appreciation.

The G4 Cube unique design helps you appreciate the premium audio quality of the Apple-designed Harman Kardon stereo speakers. Designed without a fan, the G4 Cube runs in virtual silence, so you can concentrate on more important things – like enjoying your music.



**AppleCare**  
Power Mac G4  
Protection Plan  
**\$248<sup>96</sup>** #722601

## 108-key Apple Pro Keyboard

Includes 15 full-size function keys, document controls, full-size inverted-T cursor keys, audio control keys and a disk-eject key.

## Optical Apple Pro Mouse.

Operates on almost any surface, and the entire mouse is an ergonomic button.

Processor	Hard Drive	RAM Std/Max	Backside Cache	Optical Drive	Gigabit Ethernet	Shopping Spree OR FREE Memory	Item #	ONLY
G4 Cube/450MHz	20.0GB Ultra ATA-66	64MB/1.5GB	1.0MB at 225MHz	DVD-ROM	No	\$100 64MB	#124926	\$1794.99
G4/400MHz	20.0GB Ultra ATA-66	64MB/1.5GB	1.0MB at 200MHz	DVD-ROM	Yes	\$100 64MB	#124920	\$1594.99
G4/Dual 450MHz	30.0GB Ultra ATA-66	128MB/1.5GB	1.0MB at 225MHz	DVD-ROM	Yes	\$200 128MB	#124921	\$2494.99
G4/Dual 500MHz	40.0GB Ultra ATA-66	256MB/1.5GB	1.0MB at 250MHz	DVD-ROM	Yes	\$200 128MB	#740288	\$3194.99
G4/Dual 500MHz	40.0GB Ultra ATA-66	256MB/1.5GB	1.0MB at 250MHz	DVD-RAM	Yes	\$200 128MB	#124922	\$3494.99

Business Lease Available: 36-month, fair-market value lease based on approved credit. Other leasing options available. Leases require a minimum order of \$1000. Call 1-800-611-9751 for details.

**Awesome NEW wireless technology!**



**ONLY \$124<sup>99</sup>**  
#122000

**Get fast access to 45.0GB of info!**



LaCie FireWire 45GB Hard Drive

**ONLY \$619<sup>99</sup>**  
#115774

**Radeon Chip Set!**



**ONLY \$279<sup>98</sup>**  
#126501



**Power Mac G4 Memory**

**64MB Upgrade \$69<sup>99</sup>\*** #67433  
**128MB Upgrade \$149<sup>99</sup>\*\*** #12384  
**256MB Upgrade \$349<sup>99</sup>†** #71557

\*After \$15 mfr. mail-in rebate. Low Zone price \$84.99. \*\*After \$20 mfr. mail-in rebate. Low Zone price \$169.99. †After \$30 mfr. mail-in rebate. Low Zone price \$379.99. Rebates valid through 10/31/00.



Credit cards are not charged until the order is shipped. Most products ship the same day (barring system failure, etc.). Shipping options include Ground, 2nd Day and Overnight delivery. Freight is based on average product weight. Handling extra. Insurance available. Special orders may require special shipping and handling charges. for international shipping rates. Prices and product availability subject to change without notice. Specials and promotions may be limited to stock on hand. Not responsible for typographical errors. All products sold by Multiple Zones International (MZI) are third party products and are subject to the warranties & representations of the applicable manufacturers, including but not limited to Y2K compliance. Accordingly, MZI makes no representation or warranty with respect to Y2K compliance of product sold. © Multiple Zones International Inc. All rights reserved. Unauthorized duplication is a violation of applicable laws. Apple®, the Apple logo, Macintosh® and PowerBook® are registered trademarks of the Apple Computer, Inc.



# Spree - Get Happy!



## Power Mac Dual G4™



Apple  
Cinema Display 22"  
**\$3999.97**  
#124924

## G4 supercomputing delivers.

Affordable, supercomputing dream machines! Besides amazing CPU performance, the new Power Mac G4 comes with up to a 40-gig hard drive, a 16MB ATI RAGE Pro 128 graphics card, two FireWire ports, and support for up to 1.5GB of RAM. Order the ultimate tool for creative professionals today!

## Apple's newest displays

Featuring Apple's hallmark, industry-leading design and quality, all connect to the Apple Display Connector on the new Power Mac G4s and Power Mac G4 Cube.

## Professional desktop studio.

Add a 22-inch Apple Cinema Display, and get a viewable area wide enough to view two full pages and to spread out dozens of clips, timelines, tools and previews.

**\$500 Price Drop!**

Apple Studio 15" Display  
Flat-screen

ONLY **\$794.98**  
#114856



Apple Cinema Display  
22" diagonal Flat-Panel

- ✓ DVD Panoramic View
- ✓ 3X High-contrast

ONLY **\$3999.97**  
#124925

Apple Studio 15" Display  
15" diagonal Flat-Panel

- ✓ Pure Digital Interface
- ✓ New Cinema Display-like Case

ONLY **\$994.98**  
#124924

Apple Studio 17" Display  
16" viewable Natural Flat Diamondtron

- ✓ ColorSync
- ✓ Theater Mode

ONLY **\$494.98**  
#124923

## Mac Zone Exclusive!

Your Choice!

up to **\$200**

Instant Shopping Spree

Good towards any purchase with select Apple computers. Some restrictions apply. Call for details.

OR

**FREE**  
up to **128MB**  
Memory

Offers subject to change. While supplies last. **\$170 VALUE**

The world-standard image-editor!



**NEW Version!**

ONLY **\$189.99**  
#117291

Photoshop 6.0 Upgrade

- Streamlined interface
- Paragraph text options
- On-canvas text entry
- New layer management
- Superb vector shape and text support

**BONUS!**

Go-Live 30-day FREE trial CD included in box.

Activate full version for only \$99 - a \$200 value! Offer ends 3/31/01.

Save big with Web & print publishing collections!

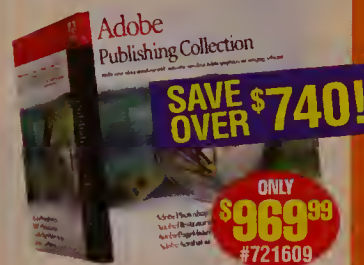


**SAVE OVER \$609!**

ONLY **\$969.99**  
#117232

Adobe Web Collection 2.0:

- Photoshop • Illustrator
- GoLive • LiveMotion



**SAVE OVER \$740!**

ONLY **\$969.99**  
#721609

Adobe Publishing Collection 8.0:

- Photoshop • Illustrator
- PageMaker Plus • Acrobat

Revolutionary interface boosts read & write speeds!



ONLY **\$299.99**  
#115183  
QPS 8X4X32X  
Ext. FireWire CD-RW  
\*After \$30 mfr. mail-in rebate. Low Zone price: \$329.99. Expires 1/15/01.

## Zones Exclusive!

ONLY **\$199.99**  
#113896

Astra 6400  
42-bit FireWire Scanner for Mac  
\*After \$50 Zones Exclusive mfr. mail-in rebate, when purchased with CPU. Low Zone price \$249.99. Offer expires 11/30/00.

Exhibition quality, desktop convenience!



ONLY **\$499.99**  
#113866  
Stylus Photo 1270  
Inkjet Color Printer

Fast, affordable laser printing!

ONLY **\$299.99**  
#654328  
brother  
HL-1240 12ppm  
Monochrome Laser

Essential for high-impact print and Web design!



ONLY **\$569.99**  
#117273

Corporate bids welcome!  
Fax to 1-888-239-2591

NASDAQ® COMPANY Ticker Symbol: MZON

Source Code  
MW120

Order by Phone  
**1.800.436.0606**

Order Online Today  
**www.maczone.com**



# macZone

a division of **Zones.com**

# NEW PowerBooks

The world-standard image-editor!

Adobe Photoshop 6.0

**NEW Version!**

ONLY **\$189<sup>99</sup>**  
#117291

**Photoshop 6.0 Upgrade**

- Streamlined interface
- Paragraph text options
- On-canvas text entry
- New layer management
- Superb vector and text support

**BONUS!**

**Go-Live 30-day FREE trial CD included in box.**

Activate full version for only \$99 – a \$200 value! Offer ends 3/31/01.

Office:mac

**NEW!**

Office 2001 Upgr.

ONLY **\$259<sup>99</sup>**  
#729141

Top 5 Reasons to Upgrade:

- 1 Built from the ground up for Macintosh!
- 2 Complete compatibility with Office 97/2000, Windows and Office 98!
- 3 Seamless integration with FileMaker for database work!
- 4 NEW Entourage for information management!
- 5 Easier than ever to get the results you want!

**1200 x 2400 Resolution, 42-bit CCD!**

Microtek ScanMaker 4700

**NEW Includes UTA!**

ONLY **\$249<sup>99</sup>**  
#119652

Great for PowerBook Users!



ONLY **\$34<sup>99</sup>**  
#121998

AppleCare

PowerBook Protection Plan

**\$329<sup>96</sup>** #722604

## Portable power play.

With the new PowerBooks' larger hard drives, powerful G3 processors, up to 10 hours of battery life (with a second Li-Ion battery installed), you get enough horsepower for everything from designing huge graphics spreads in Photoshop to editing professional film projects in Final Cut Pro – even when you're far away from electrical outlets.

## Desktop movies to go.

With built-in FireWire ports, up to 20GB of hard disk space, and speeds of up to 500MHz, the PowerBook makes an ideal mobile digital video platform. Add a DV camcorder and Apple's award-winning Final Cut Pro video editing software, and you have everything you need to create professional broadcast-quality video for everything from special events to films.



Final Cut Pro 1.2  
**\$999<sup>99</sup>**  
#114885

**NEW!**

Apple® PowerBook™

Now with up to

**20GB**

Ultra ATA-66!

Now includes

**iMovie 2**

ValueRAM BY KINGSTON

Upgrade Your PowerBook!

For PowerBook 400/500

#116658	64MB	\$99.99
#116659	128MB	\$169.99
#116022	256MB	\$699.99
#116023	512MB	\$1299.99

Memory available for other PowerBook models.

With an ultrasharp, 14.1-inch TFT active-matrix display, support for dual displays, and a 24-bit video output port, PowerBooks let you do it all and see it all with exceptional clarity and versatility. Plus, for adding a special touch to desktop movies, the new PowerBooks come with iMovie 2.

## Real expansion potential.

The sleek, sculpted PowerBook connects seamlessly to plug-and-play FireWire (IEEE 1394) and USB devices that you can attach and start using in seconds. Want an external hard disk to store several hours worth of digital video? FireWire drives from VST provide colossal amounts of storage space that fit in a small space.

VST

VST Zip 250MB Drive  
**\$279<sup>99</sup>**  
#116684

FireWire

VST 45GB Ext. FireWire Drive  
**\$670<sup>99</sup>**  
#720042

VST

VST 18GB Hard Drive  
**\$532<sup>99</sup>**  
#693462

Processor	Hard Drive	Backside RAM	Cache	Optical Drive	FireWire	Modem	ATI RAGE Graphics	Shopping Spree OR	FREE Memory	Item #	ONLY
400MHz*	6.0GB Ultra ATA-33	64MB	1.0MB L2	DVD-ROM	2 Ports	56K	128-2X AGP	—	—	#116008	\$2294.98
500MHz*	12.0GB Ultra ATA-33	128MB	1.0MB L2	DVD-ROM	2 Ports	56K	128-2X AGP	\$200	128MB	#116009	\$3294.98
New 400MHz	10GB Ultra ATA-66	64MB	1.0MB L2	DVD-ROM	2 Ports	56K	128-2X AGP	\$100	128MB	#124941	\$2494.98
New 500MHz	20GB Ultra ATA-66	128MB	1.0MB L2	DVD-ROM	2 Ports	56K	128-2X AGP	\$200	128MB	#124942	\$3494.98

Business Lease Available: 36-month, fair-market value lease based on approved credit. Other leasing options available. Leases require a minimum order of \$1000. Call 1-800-611-9751 for details. \*While supplies last.

Credit cards are not charged until the order is shipped. Most products ship the same day (barring system failure, etc.). Shipping options include Ground, 2nd Day and Overnight delivery. Freight is based on average product weight. Handling extra. Insurance available. Special orders may require special shipping and handling charges. Ca international shipping rates. Prices and product availability subject to change without notice. Specials and promotions may be limited to stock on hand. Not responsible for typographical errors. All products sold by Multiple Zones International (MZI) are third party products and are subject to the warranties & representations of the applicable manufacturers, including but not limited to Y2K compliance. Accordingly, MZI makes no representation or warranty with respect to Y2K compliance of product sold. ©2000 Multiple Zones International Inc. All rights reserved. Unauthorized duplication is a violation of applicable laws. Apple®, the Apple logo, Macintosh® and PowerBook® are registered trademarks of the Apple Computer, Inc.



# Available Here!



**FREE Scooter!**  
with Final Cut Pro 1.2  
**\$80 VALUE!** Ask for item #121996.

**Mac Zone Exclusive!**  
**Your Choice!** up to **\$200**  
**Instant Shopping Spree**

Good towards any purchase with select Apple computers. Some restrictions apply. Call for details.

**OR FREE**  
**128MB Memory**  
\$170 VALUE



**BONUS for PowerBook 500/12GB buyers!**

**FREE Battery!**  
\$140 Value!

Ask for Item #124961  
Offers subject to change. While supplies last.



**NEW! Version 9**  
**Mac OS 9.0.4**  
**ONLY \$89.98**  
#122186

**Extreme OS for the Web!**  
Mac OS 9.0.4 makes your iMac more powerful, more Internet-friendly and more fun to use than ever before.



**Final Cut Pro 1.2**

**ONLY \$999.99**  
#124938

**Plus FREE Video Training**  
\$400 Value!

**FREE video-based, 5 tape training series for Final Cut Pro - a \$400 value!**

\*FREE with purchase of Final Cut Pro.

## Connectivity

**Gigabit!**

Asanté FriendlyNet 7108 8+1 Gigabit Switch

**ONLY \$829.99**  
#102751

**Easily connect USB devices!**

Asanté FriendlyNet USB 4-Port Hub

**ONLY \$34.98**  
#637021

**Lifetime warranty!**

Asanté FriendlyNet 8+2 Switch

**ONLY \$121.99**  
#607707

**Get your entire office online!**

Macsense X-Router MIH-120 Ethernet Router

**ONLY \$199.99**  
#636446

**Connect your Ethernet Macs to LocalTalk devices!**

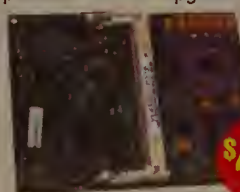
AsantéTalk 10Base-T to LocalTalk

**ONLY \$89.98**  
#16630

## Processor Upgrades

**Boost your iMac!**

iMAXpwr Processor Upgrade



**ONLY \$499.99**  
#733166

**Supports up to 4 Internal ATA Drives!**

Sonnet Tempo Card



**ONLY \$99.99**  
#119180

**Sonnet Exclusive!**

Sonnet G3/333MHz PowerBook 1400 Upgrade Card

**ONLY \$299.99**  
#115344

**For PowerBook 1400!**

**1st in over a year- NEW Mac video card upgrade!**

ATI 32MB Radeon Upgrade



**ONLY \$279.99**  
#126501

**PowerBook compatible!**

## Get High-Quality Output

**Mobile, wireless printing!**  
Only 4.5 lbs!  
Canon BJC-85

**ONLY \$299.99**  
#687476

**Includes built-in UTA and FireWire!**

UMAX Astra 6450 Scanner

**ONLY \$299.99**  
#113897

## Save on Storage

**Huge storage capacity, small price**

QPS External CD-RW FireWire Drive 12x10x32

**ONLY \$369.99\***  
#113595

\*After \$30 mfr. mail-in rebate. Low Zone price: \$399.99.

**Easy to use!**  
Iomega Zip 100 Portable USB Drive

**ONLY \$89.99**  
#95251

**Over twice the storage of the original!**

Iomega Zip 250 Portable USB Drive

**ONLY \$179.99**  
#650368

**Create your own CDs!**

USB External CD-RW Drive 4x4x24

**ONLY \$259.99**  
#107014



**AS LOW AS \$7.99 EACH**



**Fuji 100MB Zip Mac Disks**

#37185	10-Pk Color	\$10 rebate	\$79.99*
#54009	20-Pk Color	4-FREE...	\$179.99**
#86292	2-Pk Gray	\$3 rebate	\$24.99†
#35459	5-Pk Gray	\$10 rebate	\$49.99*
#37186	10-Pk Gray	\$10 rebate	\$79.99*

\*After \$10 mfr. mail-in rebate. \*\*Free disks by mail. Coupon in box. †After \$3 mfr. mail-in rebate.



**AS LOW AS \$14.99†† EACH**



**Fuji 250MB Zip Mac Disks**

#109489	Zip - Single	\$17.99
#119121	Zip - 3-Pack	\$49.99
#115145	Zip - 10-Pack	\$149.99

††When purchased in 10-pack.



**AS LOW AS \$2.99 EACH**



**Fuji CD-RW Discs 74 min**

#59704	CD-RW - Single	\$2.99
#108422	CD-RW - 3-Pack	\$7.99
#59772	CD-RW - 10-Pack	\$23.90
#105915	CD-RW - Single w/4 CD-Rs	\$6.99

Corporate bids welcome!  
Fax to 1-888-239-2591

NASDAQ® COMPANY Ticker Symbol: MZON

Source Code  
MW120

Order by Phone  
**1.800.436.0606**

Order Online Today  
**www.maczone.com**



CALL FOR A  
FREE  
FULL-COLOR  
CATALOG!



**MacWAREHOUSE**

A Micro Warehouse Company

# NEW! Dual-Processor

• Nikon • Apple • Kodak • QPS • Adaptec • Lexmark • Quark

## 6' USB Cables

Only  
**\$9.99**  
each

DCA5919: Blueberry  
DCA5920: Tangerine  
DCA5921: Strawberry  
DCA5922: Grape  
DCA5923: Lime

USB

## FireWire®

CD-RW 12 x 10 x 32\*

Only  
**\$369.95\*\***  
after rebate

Item #DR13063

\*Speeds listed are variable, maximum speeds shown.

\*\*Price AFTER mfr's \$30 mail-in rebate. Rebate coupon available at [www.warehouse.com/rebate/qps](http://www.warehouse.com/rebate/qps), or call us at 1-800-390-0706 to request one. Offer valid 10/1/2000 — 1/15/2001.

## Lexmark Z52 Printer

Only  
**\$179.95**

Item #PR16221

- 15ppm black
- 7ppm color
- Up to 2400 x 1200 dpi

LEXMARK

Black Ink Cartridge, item #PR12829, only \$36.95.

## QuarkXPress 4.1



Trade-up  
for only  
**\$299.95\***

Item #SID1004

Precise layout tools and control over every aspect of your document!

QuarkXPress 4.1 Full Version, item #DTP1040, only \$769.95.

\*For PageMaker owners. Serial number required at time of purchase.

## Adaptec PowerDomain 2930U Ultra SCSI Adapter

Ideal for Power Mac G3 & G4!

Only  
**\$99.95**

Item #DRI3165

- 20MB/sec. transfer rate
- Internal & external connectors

adaptec

PAGE 1 OF 8

We accept these major credit cards:



## Power Mac G4 Dual-Processors:

# THE machines for high-end video production and image rendering!



- PowerPC G4 dual-processors with Velocity Engine rip along at up to 500MHz, strengthened by 1MB Backside Level 2 Cache per processor
- Ultra ATA/66 hard disk drives of 20, 30, or 40GB
- ATI RAGE 128 Pro graphics card with 16MB of SDRAM in a dedicated AGP 2X graphics slot
- DVD-ROM or DVD-RAM built-in
- Easy-to-use iMovie 2 software included
- Faster Network Connections! — The next generation of Internet technology, Gigabit Ethernet, lets you transfer huge files at blazing speeds
- Two 400Mbps FireWire ports, two USB ports, support for up to three internal SCSI drives and two internal ATA drives
- Apple Pro Optical Mouse and Keyboard with audio controls, and a special media-eject key
- Easy Wireless Networking! — Ready for AirPort Base Station (sold separately)



NEW!

Monitors sold separately.

Apple 22" Cinema Display (shown above) only \$3999. Item #MON1095

## Choose the NEW Power Mac G4 that's right for you!



### 400MHz/G4 processor (single processor)

- 64MB SDRAM (exp. to 1.5GB) • 20.0GB Ultra ATA/66 Hard Drive
- 1MB Backside Level 2 Cache • DVD-ROM Drive • 56K Modem
- 1GB Ethernet • iMovie 2

CPU1646 ..... Business Lease only \$47/mo.\$ ... **\$1599**



### 450MHz/G4 Dual-processor

- 128MB SDRAM (exp. to 1.5GB) • 30.0GB Ultra ATA/66 Hard Drive
- 1MB Backside Level 2 Cache per processor • DVD-ROM Drive
- 56K Modem • 1GB Ethernet • iMovie 2

CPU1647 ..... Business Lease only \$73/mo.\$ ... **\$2499**



### 500MHz/G4 Dual-processor

- 256MB SDRAM (exp. to 1.5GB) • 40.0GB Ultra ATA/66 Hard Drive
- 1MB Backside Level 2 Cache per processor • DVD-RAM Drive
- 56K Modem • 1GB Ethernet • iMovie 2

CPU1648 ..... Business Lease only \$102/mo.\$ ... **\$3499**

Our sales representatives are ready to take your order 24 hours a day, 7 days a week. We accept most major credit cards. We offer overnight delivery to most areas for in-stock items ordered weekdays up to 12:00 midnight (EST) (or 11:00 pm (EST) if ordered via [warehouse.com](http://warehouse.com)). CT, IL, NJ, OH, and TN residents, please add applicable sales tax. Shipping and handling charges apply.

Please contact one of our sales representatives or visit the Customer Service section of our Web site at [warehouse.com](http://warehouse.com) to review our 30-day defective product return policy. Certain products must be returned directly to their manufacturers.

Micro Warehouse is not responsible for any typographical or photographic errors in this advertisement. Prices, policies and item availability are subject to change at any time. Manufacturer's warranties apply and therefore Micro Warehouse makes no product warranty, either expressed or implied, including without limitation, any warranty of merchantability or fitness for a particular purpose.

Copyright© 2000 Micro Warehouse, Inc. All rights reserved. All product names and images throughout this advertisement are trademarks or registered trademarks of their respective holders.



Order online at: [www.warehouse.com](http://www.warehouse.com)

# Power Mac G4s!

• Nikon • Kodak • Adaptec • Lexmark • Quark

## NEW Power Mac G4 Cube!



Shown here: Power Mac G4 Cube with 15" Flat Panel Display (sold separately, see below).

**The machine for desktop publishing, making desktop movies, playing ultra-realistic 3-D games, and enjoying the latest movies!**

The 450MHz Power Mac G4 Cube — at less than one-quarter the size of most PCs — delivers far greater performance. Engineered to fit into an 8-inch cube, the G4 processor reaches speeds of more than one billion calculations per second!

- 450MHz PowerPC G4 processor
- 1MB of Backside Level 2 Cache
- 64MB SDRAM (exp. to 1.5GB)
- 20.0GB Ultra ATA/66 HD
- DVD-ROM Drive with DVD-Video Playback
- ATI RAGE 128 Pro Graphics Card with 16MB of Graphics Memory
- Apple Display Connector and VGA Connector
- Built-in 56K modem
- NEW! Apple Pro Keyboard and Optical Mouse
- Harman Kardon Speaker System

**Power Mac G4 Cube 450MHz**  
**CPU1657 ..... Business Lease only \$52/mo. \$1799**

### Apple 17" Studio Display

**NEW!**

**Only \$499**

Item #MON1094

- 17" (16" viewable) Diamondtron CRT
- 0.25mm aperture grille pitch
- Resolutions up to 1600 x 1200 @ 65Hz

### 15" Apple Flat Panel Display

**NEW!**

**Only \$999**

Item #MON1093

- 15" viewable display • 16.7 million colors
- 1024 x 768 pixels (optimum resolution)
- Theater Mode automatically brightens screen for optimal movie viewing

### Apple 22" Cinema Display

**NEW!**

**Only \$3999**

Item #MON1095

- 22" viewable display
- 16.7 million colors
- 1600 x 1024 pixels (optimum resolution)
- Displays up to two full pages of text or a widescreen video DVD movie

Leases are only available to business customers with approved credit on product orders where at least one product totals \$750 or more. Lease payments are based on a 48-month Lease. Call today to see how you can qualify. Lease terms are subject to change.

A MicroWarehouse Company

# MacWAREHOUSE

## 1-800-725-1450

ORDER TOLL-FREE 24 HOURS A DAY, 7 DAYS A WEEK! CANADA ORDERS CALL: 1-800-603-5139

**EXPRESS DELIVERY OVERNIGHT!**  
FOR DELIVERY NEXT BUSINESS DAY

In-stock items, call weekdays by midnight (E), or order online weekdays by 11pm (E).

[www.warehouse.com/md](http://www.warehouse.com/md)

**Your #1 Source for Mac Computer Solutions!**

- ▶ Selection Business
- ▶ Service Government
- ▶ Support Education
- ▶ Satisfaction Home

## Let's Talk Selection!

- We feature **60,000+** leading name brand computer hardware, software and networking products to provide to you the broadest selection possible.
- Our **\$2.4+ billion** buying power frequently allows us to provide you with the newest products, latest upgrades and best deals **FASTER** than other suppliers.
- We ship an average of **14,000 packages/day** — most for delivery the very next business day. That ranks us as a world-class computer solutions provider!



**We're here for you 24/7!**

### Kodak DC290 Zoom Digital Camera

**NEW LOW PRICE!**

Was: \$799.95  
Now only **\$749.95**

Item #IN8305

- 3.3 megapixels in Ultra Mode
- 3X optical/2X digital zoom lens
- USB and serial cables included
- 2" color LCD

**Kodak**

### Nikon CoolPix 990 Digital Camera

**Only \$949.95**

Item #IN8547

**USB**

**Nikon**

- 3.3 Megapixel resolution
- 3x Nikkor zoom lens
- 2048 x 1536 ppi resolution

**PAGE 2 OF 8**







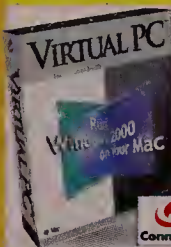
Authorized Reseller

**MacWAREHOUSE** A Micro Warehouse Company

# New Apple iMacs start

• Keyspan • Apple • Canon • Hewlett-Packard • Umax • Kensington

## VirtualPC with Windows 2000



Only  
**\$199<sup>95</sup>\***  
after rebate

when you buy VirtualPC 3.0  
with Windows 2000

Item #UT11664

\*Rebate coupon available at [www.warehouse.com/rebate/](http://www.warehouse.com/rebate/)  
connectix, or call us at 1-800-390-0706 to request one.  
Offer good 8/21/2000-11/20/2000.

## USB Floppy Drive

Available in 7 colors!

Only  
**\$84<sup>95</sup>**

Item #DR12164



Imation Mac Neon 3.5" Disk  
10-pack, only \$5.99 (only  
59¢ each!), item #MED0540.



## HP DeskJet 935c Color Printer

Only  
**\$199<sup>95</sup>**

Item #PR16225

• USB compatible only  
• 9ppm blk; 7.5ppm clr • PhotoREt III technology  
Black Ink Cartridge, only \$29.99, item #67208.



## iMac USB Hubs



White  
Hub only  
**\$39<sup>99</sup>**  
each

Item #VW64296

• Color-coordinates with  
any iMac color!  
• Other colors available,  
call for details

KEYSPAN

## UMAX Astra 2200 Color Scanner

As low as  
**\$99<sup>95</sup>\***  
after \$20 rebate

Item #IN8143



• USB and SCSI interface

**UMAX**

\*Price AFTER manufacturer's \$20 mail-in rebate.  
Before rebate: \$119.95. Rebate coupon available at  
[www.warehouse.com/rebate/umax](http://www.warehouse.com/rebate/umax), or call us at  
1-800-390-0706 to request one. Offer expires 1/31/2001  
or while supplies last.

PAGE 3 OF 8



## FREE<sup>†</sup> 64MB RAM Upgrade

### NEW iMac / 350MHz

Indigo: Item #CPU1649

**\$799!**

**FREE<sup>†</sup>**  
64MB RAM  
UPGRADE

Ask for item  
numbers  
AAP1150 and  
INSTL10.

Business Lease only \$25/mo.<sup>9</sup>



This entry-level iMac is the one you want for surfing the Internet. You get a faster processor, a bigger hard drive, and a built-in Harman Kardon Odyssey audio system!

#### Features:

- 350MHz PowerPC G3 Processor
- 64MB SDRAM (exp. to 1.0GB)
- 7.0GB Ultra/ATA Hard Drive
- 24X (maximum) CD-ROM Drive
- 56K V.90 Internal Modem
- 15" Display (13.8" Viewable Image Size)
- Two USB Ports
- Apple Pro Keyboard and Optical Mouse

### NEW iMac DV / 400MHz

Indigo: Item #CPU1650

**\$999!**

Ruby: Item #CPU1651

Business Lease only \$29/mo.<sup>9</sup>

**FREE<sup>†</sup>**  
64MB RAM  
UPGRADE

Ask for item  
numbers  
AAP1150 and  
INSTL10.



The iMac DV takes you beyond the Internet and into the home movie business. Featuring iMovie 2, the iMac DV brings desktop video editing to an under-\$1000 iMac.

#### Features:

- 400MHz PowerPC G3 Processor
- 64MB SDRAM (exp. to 1.0GB)
- 10.0GB Ultra/ATA Hard Drive
- 24X (maximum) CD-ROM Drive
- 56K V.90 Internal Modem
- 15" Display (13.8" Viewable Image Size)
- Two USB Ports/Two FireWire Ports
- Apple Pro Keyboard and Optical Mouse

## iDOCK 2 USB MULTIPOINT HUB



- Floppy drive
- Swivel Base for iMac
- 4 USB ports
- 2 Serial ports
- 1 ADB port

Only  
**\$259<sup>99</sup>**

Item #DEH4620

Includes 3.5"  
floppy drive!



## SPRING CLEANING 3.0

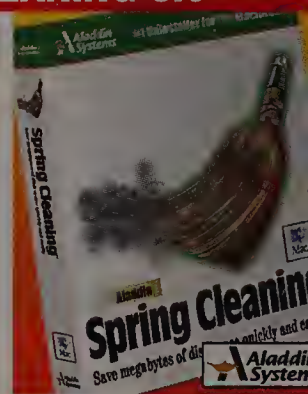
**FREE\***

with any purchase from  
MacWAREHOUSE

Item #ZZZ1760

- Get the trash out of your Mac  
to help prevent system crashes!
- Uninstall old software fast!
- Improved interface!
- Faster searches!

\*\$3.95 shipping and handling applies. Shipped in  
promotional packaging. Hurry! Offer good while  
supplies last.



## Orbit USB for Mac

Only **\$49<sup>95</sup>**

Ask for item #INP1761

- Designed for iMacs and USB Power Macs
- Fits the natural shape of your hand • Manufacturer's 5-year warranty



KENSINGTON

## Stylus Color 777 Printer

Only **\$99<sup>95</sup>**

Ask for item #PR16408

- 8ppm black • 6ppm color • 2800 x 720 dpi



EPSON

## DSC-S30 Cyber-Shot Digital Camera

Only **\$499<sup>95</sup>**

Ask for item #IN8611

- 1.3 megapixel optical res. • 2" LCD
- 3x optical/6x digital zoom • 4MB memory stick



SONY



Order online at: [www.warehouse.com](http://www.warehouse.com)

# ing at just \$799!

• Connectix • Sony • VST • Epson • Farallon • Microsoft

## when you buy any iMac!

Ask for item numbers  
AAP1150 and INSTL10.

### NEW iMac DV+ / 450MHz

Indigo: Item #CPU1652

Ruby: Item #CPU1653

Sage: Item #CPU1654

## \$1299! ea.

Business Lease only \$38/mo.<sup>†</sup>

**FREE<sup>†</sup>**  
64MB RAM  
UPGRADE

Ask for item  
numbers  
AAP1150 and  
INSTL10.



The iMac DV+ featuring iMovie 2, enables you to watch the latest DVD title in Theater Mode with its DVD-ROM drive.

#### Features:

- 450MHz PowerPC G3 Processor
- 64MB SDRAM (exp. to 1.0GB)
- 20.0GB Ultra/ATA Hard Drive
- DVD-ROM • 56K V.90 Internal Modem
- 15" Display (13.8" Viewable Image Size)
- Two USB Ports/Two FireWire Ports
- Apple Pro Keyboard and Optical Mouse

### NEW iMac DV Special Edition / 500MHz

Graphite: Item #CPU1655

Snow: Item #CPU1656

## \$1499! ea.

Business Lease only \$44/mo.<sup>†</sup>

**FREE<sup>†</sup>**  
64MB RAM  
UPGRADE

Ask for item  
numbers  
AAP1150 and  
INSTL10.



iMac DV Special Edition has it all — iMovie 2, Theater Mode, a 500MHz G3 processor, and a 30.0GB hard drive!

#### Features:

- 500MHz PowerPC G3 Processor
- 128MB SDRAM (exp. to 1.0GB)
- 30.0GB Ultra/ATA Hard Drive
- DVD-ROM • 56K V.90 Internal Modem
- 15" Display (13.8" Viewable Image Size)
- Two USB Ports/Two FireWire Ports
- Apple Pro Keyboard and Optical Mouse

<sup>†</sup>Free 64MB RAM upgrade AFTER MacWAREHOUSE \$100 mail-in rebate. Price before rebate is \$129.95. Installation fee of \$29.95 is required. Rebate coupon is available at [www.warehouse.com/rebate/macwarehouse](http://www.warehouse.com/rebate/macwarehouse) or call us at 1-800-390-0706 to request one. Offer not valid on the purchase of any reconditioned iMac. Offer expires 11/30/2000. MacWAREHOUSE reserves the right to terminate this offer at any time.



### NEW MICROSOFT OFFICE 2001: MAC EDITION

Personal productivity applications designed specifically for the Mac.

#### Microsoft Office 2001 includes:

- Microsoft Word 2001
- Microsoft Excel 2001
- Microsoft PowerPoint 2001
- Plus, Entourage e-mail and personal information manager

Microsoft Office 2001 Upgrade  
VW74556 ..... \$269.95

Microsoft Office 2001 Full Version  
VW74557 ..... \$439.95

Ownership of any prior version of Office, Word, Excel, or PowerPoint is required for upgrade.

Upgrade  
for only

## \$269<sup>95</sup>

Item #VW74556

**Microsoft®**

Leases are available to business customers with approved credit on product orders where at least one product totals \$750 or more. Payments are based on a 48-month Lease. Leasing terms subject to change without notice. Call for complete details. Other leasing terms available.

A MicroWarehouse Company

# MacWAREHOUSE® 1-800-725-1450

ORDER TOLL-FREE 24 HOURS A DAY, 7 DAYS A WEEK! CANADA ORDERS CALL: 1-800-603-5139

**EXPRESS DELIVERY  
OVERNIGHT!**  
FOR DELIVERY NEXT BUSINESS DAY

In-stock items,  
call weekdays by  
midnight (E), or order  
online weekdays  
by 11pm (E).

## [www.warehouse.com/md](http://www.warehouse.com/md)

Your #1 Source for Mac Computer Solutions!

- ▶ Selection Business
- ▶ Service Government
- ▶ Support Education
- ▶ Satisfaction Home

## Let's Talk Service!

- Order by phone or online 24 hours a day, 7 days a week. Either way, you'll receive fast service, backed by an experienced tech support staff.
- Let us custom configure your new desktops, laptops and servers prior to shipping — right in our Distribution and Configuration Center. They arrive set up to go.
- Ask about flexible, all-inclusive leasing plans that offer savvy business customers the purchasing flexibility they need.



We're here  
for you  
24/7!

**EtherMac iMac iPrint  
Adapter with built-in PhoneNet!**

Only  
**\$94<sup>99</sup>**

Item #DEP1900



- Connects your iMac to LocalTalk printers and other Macs
  - Easy plug-and-play installation
- Farallon®**  
Ethernet iPrint Adapter for StyleWriter,  
only \$74.99, Item #DEP1739.

**Canon ZR-10 Digital  
Video Camera**

Only  
**\$899<sup>95</sup>**

Item #IN8604



- 10X Optical/200X Digital Zoom
- Image stabilizer
- 2.5 LCD screen

**Canon**

PAGE 4 OF 8





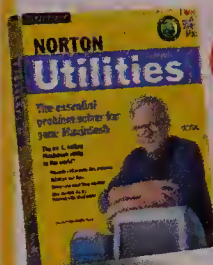
CALL FOR A **FREE**  
FULL-COLOR  
CATALOG!



# Apple PowerBook G3

• Fuji • TDK • Apple • PowerLogix • Imation • Keyspan • Hewlett-Packard

## Norton Utilities 5.0



Only  
**\$99<sup>95</sup>**

Item #UT11546

- Prevents computer disasters
- Speeds recovery from emergencies

SYMANTEC.

## USB Twin Serial Adapter



Only  
**\$79<sup>99</sup>**

Item #DAD1637

KEYSPAN

- Supports up to 1Mbps per port
- Compatible with Apple StyleWriters and personal LaserWriters

## NEW! Palm m100 Connected Organizer

MAC SOFTWARE INCLUDED IN BOX

Only  
**\$149**

Item #BND3947

- Includes HotSync Cable
- Convenient clock positioned for at-a-glance timekeeping



## Olympus D-460 Zoom Digital Camera



Only  
**\$399<sup>95</sup>**

Item #IN8582

- 3X optical zoom
- Up to 1280 x 960 dpi

OLYMPUS

## SupraExpress V.90 56K Modem

Only  
**\$78<sup>99</sup>**

Item #DMD3503

- 56K ITU Standard
- 230Kbps throughput
- Voicemail/Caller ID

\*Capable of receiving data up to 56Kbps. Actual send and receive speeds may vary.

DIAMOND

## HP LaserJet Printers

As low as  
**\$769<sup>95</sup>!**

Black Toner Cartridge (2100): Item #PA1871, only \$99.95

### HP LASERJET 4050N

~~\$1479<sup>95</sup>~~  
- \$200 mfr's mail-in rebate  
Only **\$1279<sup>95</sup>\***  
Lease It for \$43/mo.<sup>†</sup>  
Item #PR14947

- Prints 17ppm
- 1200 dpi max. res.
- 133MHz RISC processor
- Ethernet 10/100Base-TX

Black Toner Cartridge (4050): Item #PR13025, only \$85.99

### HP LASERJET 5000N

Only **\$2049<sup>95</sup>**  
Lease It for \$59/mo.<sup>†</sup>  
Item #PR13443

- Prints 16ppm
- Up to 1200 dpi max. res.
- Prints sizes 3"x 5" thru 11"x 17"

Black Toner Cartridge (5000): Item #PR13742, only \$139.99

### HP LASERJET 2100M

- Prints 10ppm
- 1200 dpi resolution
- HP PostScript Level 2
- LocalTalk connectivity

Item #PR14691



HP LaserJet 2100 shown.

### HP LASERJET 8000N

Only **\$2549<sup>95</sup>**  
Lease It for \$74/mo.<sup>†</sup>  
Item #PR13724

- Prints 24ppm
- Up to 1200 dpi max. res.
- 133MHz RISC processor

Black Toner Cartridge (8000): Item #63223, only \$155.99

### HP LASERJET 8100N

• Prints 32ppm • 1200 dpi  
Item #PR14315 Lease It for \$84/mo.<sup>†</sup>

**\$2899<sup>95</sup>**

Black Toner Cartridge (8100): Item #PA1662, only \$178.99

## MAC OS 9.0.4

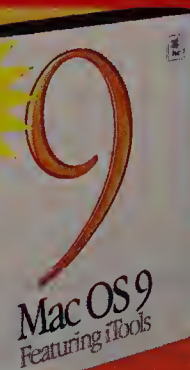
Only  
**\$99<sup>95</sup>**

Item #SYS1068

- Sherlock 2: Easily find people, news, and shopping on-line!
- Easy-to-use, functional interface
- Additional FireWire® and USB support

\*iTools is a bonus to Macintosh® users running the Mac OS 9.0 or 9.0.4 operating system, and can be accessed at [www.apple.com](http://www.apple.com). See box for details.

**BONUS!**  
iTools from Apple  
with purchase of  
Mac OS 9.0.4!



## VIEWSONIC GS790



Ideal for  
graphics  
applications!

- 19" (18" viewable image size)
- .22 HOR
- 1600 x 1200 @ 76Hz
- Short depth design

Only  
**\$419<sup>95</sup>**

Item #MT3318



## NEW! FINEPIX 40i DIGITAL CAMERA

Only  
**\$699<sup>95</sup>**

Blue: Item #IN8802

- 2.4 megapixels
- Captures pictures, movies and music
- Includes tethered remote, headphones, and rechargeable battery kit!

FinePix 40i Digital Camera (Silver)

IN8805.....\$699.95



MP3 Player  
and Digital Camera  
All-in-One!

## IOMEGA 100MB ZIP DISKS



100MB Zip Disks  
only

**\$8<sup>99</sup>**

each, in 20-pack

Item #BND3616

100MB Zip Disk (20-pack)  
BND3616 .....\$179.80



## TDK All Speed CD-Rs

Only **49¢** each, in 100-pack spindle

Ask for item #ME8906

- 74 min.
- 650MB

TDK



## PowerLogix iMac Upgrade

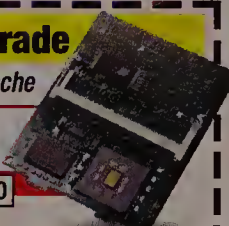
500MHz G3 with 1MB Backside Cache

- Installs in minutes
- iForce utility included

Only **\$499**

Ask for item #DRI4150

PowerLogix

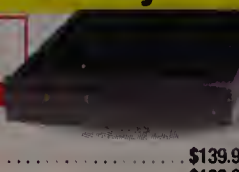


## Apple PowerBook G3 Battery

As low as **\$139<sup>95</sup>**

Ask for item #ACC3728

• Lithium-Ion  
ACC3728 (fits new 1999/2000 models) .....\$139.95  
ACC3307 (fits 1998 models) shown .....\$199.95





Order online at: [www.warehouse.com](http://www.warehouse.com)

# up to 500MHz!

• Palm • Iomega • Olympus • Symantec • Targus • ViewSonic



## New! Apple PowerBook G3s

- Up to 500MHz PowerPC G3 processor
- Up to 128MB PC100 SDRAM (expandable up to 512MB)
- DVD-ROM drive
- Up to 20GB Ultra ATA/66 hard drive
- iMovie 2 software
- 1MB Backside Level 2 Cache
- 14.1" active-matrix display
- Support for optional AirPort card for wireless connection to your network or the Internet
- Two 400Mbps FireWire® ports
- Two 12Mbps USB ports

**PowerBook G3/400MHz processor**  
• 64MB SDRAM • 6.0GB Ultra ATA/66 HD • DVD-ROM  
• 14.1" active-matrix display  
Item #CPU1641 **\$2499**

Lease It for \$73/mo.\*

**PowerBook G3/500MHz processor**  
• 128MB SDRAM • 12.0GB Ultra ATA/66 HD • DVD-ROM  
• 14.1" active-matrix display  
Item #CPU1642 **\$3499**

Lease It for \$102/mo.\*

Up to 500MHz

### NEW! SPECIAL EDITION iBOOK

- 466MHz PowerPC G3 processor
- 64MB SDRAM (exp. to 320MB)
- 10.0GB Ultra ATA/66 hard drive
- DVD-ROM
- 56K modem
- 12.1" Active-Matrix Display
- iMovie 2

Cool graphite color!

Only **\$1799**

Lease It for \$52/mo.\*

Item #CPU1644

### NEW! INDIGO iBOOK G3

- 366MHz PowerPC G3 processor
- 64MB SDRAM (exp. to 320MB)
- 10.0GB Ultra ATA/66 hard drive
- 24X max. variable CD-ROM
- 56K modem
- 12.1" Active-Matrix Display
- iMovie 2

Only **\$1499**

Lease It for \$44/mo.\*

Item #CPU1643

### POWERBOOK G3 PC100 MEMORY

New PC100 100MHz memory upgrades for 400MHz and 500MHz G3s

**64MB PowerBook G3 Memory**  
**\$169<sup>95</sup>** each

Item #CHP1064

Memory prices subject to change.

### AIRPORT CARD & STATION

- Transmits up to 150 feet
- Speeds up to 11MB per second

**AirPort Card for PowerBook/iBook, only**

**\$99**

Item #DEC4142

AirPort Base Station for iBook (shown)  
Item #DEB2777 ..... \$299

Wireless Internet Access!



### 120MB USB SuperDisk Drive



Only **\$149<sup>99</sup>**

Item #DRI3350

- Reads and writes 3.5" floppies
- USB & Hot-Swappable

IMATION

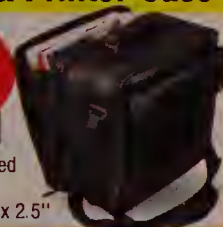
120MB SuperDisk Media 10-pack, only \$99.90 (only \$9.99 ea.), item #BND3239.

### Targus Universal Notebook & Printer Case

Only **\$69<sup>95</sup>**

Item #AC28478

- Two individual padded compartments that measure 11" x 13" x 2.5"



PAGE 6 OF 8

A Micro Warehouse Company

# MacWAREHOUSE®

# 1-800-725-1450

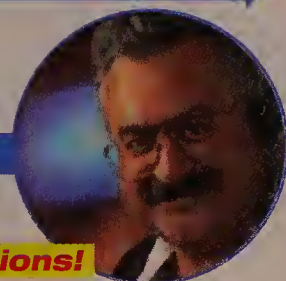
ORDER TOLL-FREE 24 HOURS A DAY, 7 DAYS A WEEK! CANADA ORDERS CALL: 1-800-603-5139

**EXPRESS DELIVERY OVERNIGHT!**  
FOR DELIVERY NEXT BUSINESS DAY

In-stock items, call weekdays by midnight (E), or order online weekdays by 11pm (E).

## [www.warehouse.com/md](http://www.warehouse.com/md)

Your #1 Source for Mac Computer Solutions!



- Selection Business
- Service Government
- Support Education
- Satisfaction Home

## Let's Talk Support!

- Our certified computer experts offer **IT Project Consulting** to help you plan, purchase and maintain your workstations and networks.
- Your highly-trained **Account Manager** provides experienced personal service as your ONE-POINT-OF-CONTACT for products, service and support.
- **Protect your investment!** We offer a variety of **Extended Warranty Service Plans** — even on-site. Ask for details!



We're here for you 24/7!



CALL FOR A  
FREE  
FULL-COLOR  
CATALOG!



**MacWAREHOUSE** A Micro Warehouse Company

# NEW Adobe Photoshop

Apple • ViewSonic • MacSense • Hewlett-Packard • Olympus • PowerUser

## NEW! Olympus C-3000 Zoom Digital Camera



Only  
**\$799<sup>95</sup>**

Item #IN8732

- 3.34 Megapixel
- USB connectivity
- 3X optical/7.5X digital zoom lens
- 15 resolution modes

**OLYMPUS**

## 64MB SmartMedia Cards

Only  
**\$149<sup>95</sup>**

Item #MY12482

- Digital film for digital cameras
- Compatible with new digital cameras with SmartMedia slot



## NEW! HP ScanJet 5370Cse

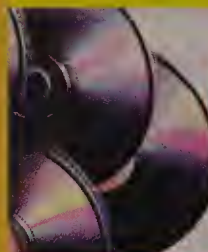
Only  
**\$299<sup>95</sup>**

Item #IN8767

- 42-bit color
- 1200 x 2400 optical dpi
- USB or parallel interface
- HP PrecisionScan Pro software



## PowerUser 8x CD-Rs



Only  
**39¢ ea.**  
(in 50-pack,  
only \$19.50)

Item #BN7866

**POWER USER**

While supplies last.

## Sony Digital FD85 Mavica

Only  
**\$699<sup>95</sup>**

Item #IN8614

- 1.3 megapixel
- 3x Optical/6x Digital Zoom
- 4x Quick access floppy disk drive
- 2.5" Solar LCD monitor



MPEG/Voice  
recording modes  
included

**SONY.**



PAGE 7 OF 8

# Power Mac G4 Prices Reduced Up to \$500 Off

Now as low as **\$1299!** While supplies last.



- Up to 500MHz G4 processor
- Up to 256MB SDRAM
- Up to 27.0GB hard drive
- DVD-ROM or DVD-RAM drive
- 1MB Backside Level 2 Cache

**Save \$100!** 400MHz G4 processor/64MB SDRAM (exp. to 1.5GB)/10.0GB Ultra ATA/66 hard drive/DVD-ROM/56K modem  
Item #CPU1574.....was: \$1399 NOW: **\$1299**  
While supplies last. **Business Lease only \$38/mo.**

**Save \$200!** 450MHz G4 processor/128MB SDRAM (exp. to 1.5GB)/20.0GB Ultra ATA/66 hard drive/DVD-ROM/56K modem/100MB Zip drive  
Item #CPU1575.....was: \$1999 NOW: **\$1799**  
While supplies last. **Business Lease only \$52/mo.**

**Save \$500!** 500MHz G4 processor/256MB SDRAM (exp. to 1.5GB)/27.0GB Ultra ATA/66 hard drive/DVD-RAM/100MB Zip drive  
Item #CPU1576.....was: \$2999 NOW: **\$2499**  
While supplies last. **Business Lease only \$73/mo.**



G4/450MHz, ▲  
CPU1575, only \$1799

Monitors sold separately.

## 17" APPLE STUDIO DISPLAY

- 17" (16" viewable) Diamondtron CRT
- 0.25mm aperture grille pitch
- 1600 x 1200 @ 60Hz max. resolution

With  
**Diamondtron CRT!**



## NEW LOW PRICE!

Was: \$349  
Now only  
**\$299**

Item #MON1044

While supplies last.

## MACINTOSH G4 SERVER

- 400MHz PowerPC G4
- 128MB SDRAM (exp. to 1.5GB)
- 20.0GB Hard Drive • DVD-ROM
- AppleShare IP 6.3



## NEW LOW PRICE!

Was: \$2999  
Now only  
**\$1999**

Item #CPU1582

**Save \$1000!**

While supplies last.

## SONY DCR-PC100 VIDEO CAMERA

**SONY.**

- 10x Optical/120x Precision Zoom
- 2.5" Precision SwivelScreen™ LCD
- 1/4" CCD

## NEW LOW PRICE!

Was: \$1999.95  
Now only  
**\$1799<sup>95</sup>**

Item #IN8595



## VIEWSONIC GS815 21" MONITOR

**NEW!**

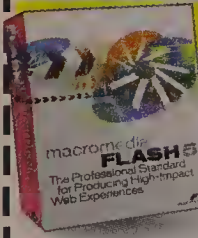


Ideal for graphic applications!

- 21" (20.0" viewable image size) monitor
- 1920 x 1440 @ 80Hz max. res.
- .21mm horiz. dot pitch
- Space saving, short depth design

Only  
**\$859<sup>95</sup>**

Item #VW75329



## Macromedia Flash 5

Upgrade only  
**\$139<sup>95</sup>**

Ask for item #UPG1303

Flash 5 Full Version,  
only \$389.95,  
item #COM1360.



## EPSON ELP 5700i Laser Printer

Only **\$349<sup>95</sup>\*** after mfr's \$50 mail-in rebate

Ask for item #PR15675

- 8ppm • Up to 1200 dpi • USB Mac only
- \*Price BEFORE mfr's mail-in rebate is \$399.95 - \$50 rebate = \$349.95. Rebate coupon in box. Offer expires 1/31/2001.
- Toner Cartridge, only \$89.95, item #PA2603.



**EPSON**

## MacSense XRouter Cable/DSL Sharing Switch

Only **\$179<sup>99</sup>**

Ask for item #DEB2814

- Supports Mac, PC, and UNIX
- Built-in 4-port 10/100 Switch
- Connect up to 250 users using one ISP account and a cable/DSL modem





Order online at: [www.warehouse.com](http://www.warehouse.com)

# 6.0 Upgrade for only \$179<sup>95</sup>!

Item #UPG1306

• Epson • ATI • Sony • Adobe • Macromedia • IBM

## NEW Adobe Photoshop 6.0



Upgrade only \$179<sup>95</sup>!

Item #UPG1306

- Tighter integration with ImageReady 3.0
- Resolution-Independent vector output
- New layer management

Photoshop 6.0 Full Version

Item #GRA3486 ..... \$599<sup>95</sup>

### Adobe Illustrator 9.0

Adobe Illustrator 9.0 Upgrade Item #UPG1248 ..... \$149<sup>95</sup>

Adobe Illustrator 9.0 Full Version Item #GRA3325 ..... \$389<sup>95</sup>

### Adobe GoLive 5.0

GoLive 5.0 Upgrade Item #UPG1254 ..... \$99<sup>95</sup>

GoLive 5.0 Full Version Item #COM1343 .... \$289<sup>95</sup>

### COMPACT FLASH CARDS

Digital film for storing pictures  
Compatible with most digital cameras

8MB Storage Card only  
\$29<sup>95</sup>

Item #MY7648

18MB Storage Card only  
\$99<sup>95</sup>

Item #MY10017

MCIA Adapter  
Item #EX8129 ..... \$12.95

Digital film  
for your digital  
camera!



### RAGE ORION ACCELERATOR



- Provides outrageously fast  
128-bit 3-D gaming

Only  
\$99\* after mfr's \$30  
mail-in rebate

Item #DRI3234

\*Price AFTER mfr's \$30 mail-in rebate. Before rebate,  
\$129. Rebate coupon at [www.warehouse.com/rebate/ati](http://www.warehouse.com/rebate/ati),  
or call us at 1-800-390-0706 to request one. Offer good  
10/1/2000-1/15/2001.



Ultra Fast  
Gaming Accelerator!

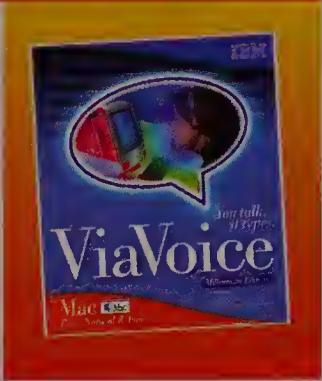
### IBM VIAVOICE MILLENNIUM EDITION

ViaVoice IBM.

Powerful speech  
recognition software  
Understands simple, natural,  
continuous speech!  
Easy installation means you'll be  
up and running in no time!

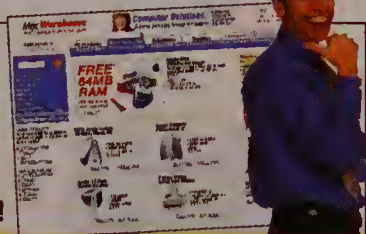
Only  
\$74<sup>95</sup>

Item #BUS1393



### Get Our Latest Pricing and Special Deals Online!

- Web-only deals!
- Thousands more  
products  
available online!
- New products  
offered daily!
- Clearance BLOWOUTS!

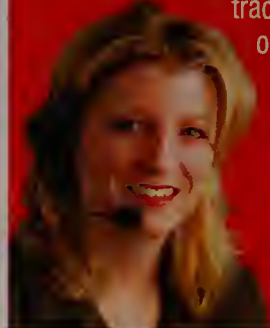


GO TO [MacWarehouse.com](http://MacWarehouse.com)

- Selection Business
- Service Government
- Support Education
- Satisfaction Home

### Warehouse.com features:

- Customized corporate pricing online — our Corporate Advantage program provides a personalized web site built to suit your organization's specific needs. Features: password protection, customized pricing, purchase history and more!
- Side-by-side product comparisons — choose the manufacturer, features and pricing you want, then build side-by-side comparisons to see how products stack up against each other!
- Check your order status — track your order from our warehouse to your desk!



We're here  
for you  
24/7!

### Ask About No Deductible Extended Warranty On-Site Plans\*

You get these great service features with any length plan:

1. Toll-Free Technical Help
2. Fast On-Site Support — uplifts manufacturer's warranty to on-site with 100% coverage for qualifying products
3. Free Replacement if unit cannot be repaired!
4. No Deductible — 100% coverage on parts and labor!
5. 24-, 36-, and 48-Month Coverage — available from date of purchase!
6. Fully Insured — Program underwritten by an "A-Excellent" rated insurer
7. Fully Transferable — Even if you move or sell the equipment, full coverage remains in effect.

Cost of Computer and/or Peripherals	Warranty Price (36 months)	Ask for item #
\$701 - \$1,200	\$149.99	MW3003
\$1,201 - \$2,000	\$189.99	MW3004
\$2,001 - \$3,000	\$219.99	MW3005

Business Customers: Call your Account Manager for terms and other pricing options.

\*Note: This promotion is not a service agreement, but an outline of coverage available through Service Net. Please call Micro Warehouse, Inc. for information and read the complete Service Agreement from Service Net, for exact coverages, terms, and conditions. Coverage begins after a manufacturer limits its warranty in any way. Plan not available on international orders.

Our Extended Warranty Plans cost just pennies a day — a small price for peace of mind.

PAGE 8 OF 8

MicroWarehouse Company

# MacWAREHOUSE

# 1-800-725-1450

ORDER TOLL-FREE 24 HOURS A DAY, 7 DAYS A WEEK! CANADA ORDERS CALL: 1-800-603-5139

EXPRESS DELIVERY  
OVERNIGHT!  
FOR DELIVERY NEXT BUSINESS DAY

In-stock items,  
call weekdays by  
midnight (E), or order  
online weekdays  
by 11pm (E).

## [www.warehouse.com/md](http://www.warehouse.com/md)

Your #1 Source for Mac Computer Solutions!





# Revitalize the imagination

Imagination and creativity is all you need to put vivacity back into your day. With over 50,000 name brand computer products, CDW can create an infinite amount of creative possibilities for your computing needs. Our knowledgeable and dependable account managers can help select the solutions you need to awaken the spirit of your business and take it to the next level. So, call an account manager today, or visit us on the Web at [CDW.com](http://CDW.com).

## Exceed expectations

### Apple® iBook™

- ▶ 366MHz PowerPC G3 processor
- ▶ RAM: 64MB std., 320MB max.
- ▶ 10GB hard drive
- ▶ 12.1" active-matrix display
- ▶ 24X Max CD-ROM
- ▶ Mac® OS 9
- ▶ Includes: Apple iMovie 2 Software

Indigo **\$1495.00** CDW245225



### Apple® iBook™ Special Edition

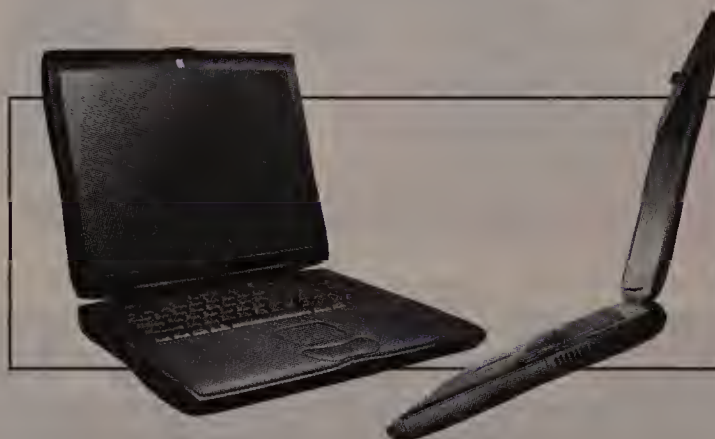
- ▶ 466MHz PowerPC G3 processor
- ▶ RAM: 64MB std., 320MB max.
- ▶ 10GB hard drive
- ▶ 12.1" active-matrix display
- ▶ 6X Max DVD-ROM
- ▶ Mac® OS 9
- ▶ Includes: Apple iMovie 2 Software

Graphite **\$1795.00** CDW 245226

### Apple® PowerBook®

- ▶ 400MHz PowerPC G3 processor
- ▶ RAM: 64MB std., 512MB max.
- ▶ 10GB hard drive
- ▶ 14.1" active-matrix display
- ▶ 6X Max DVD-ROM
- ▶ Mac® OS 9
- ▶ Includes: Apple iMovie 2 Software

**\$2495.00** CDW 245222



### Apple® PowerBook®

- ▶ 500MHz PowerPC G3 processor
- ▶ RAM: 128MB std., 512MB max.
- ▶ 20GB hard drive
- ▶ 14.1" active-matrix display
- ▶ 6X Max DVD-ROM
- ▶ Mac® OS 9
- ▶ Includes: Apple iMovie 2 Software

**\$3495.00** CDW 245224

CDW carries the full line of Macintosh and Macintosh compatible products. Call your CDW account manager or visit us at [www.cdw.com](http://www.cdw.com) for more information.



Authorized Reseller



# Awaken creativity



## Apple iMac DV

- ▶ 400MHz PowerPC™ G3 processor
- ▶ RAM: 64MB std., 1GB max.
- ▶ 10GB hard drive
- ▶ 24X Max CD-ROM drive
- ▶ 56K modem
- ▶ 10/100BASE-T Ethernet port
- ▶ AirPort ready

**\$995.00**

Indigo CDW 235688

Ruby CDW 235689

## Apple iMac DV+

- ▶ 450MHz PowerPC G3 processor
- ▶ RAM: 64MB std., 1GB max.
- ▶ 20GB hard drive
- ▶ 4X Max DVD-ROM drive
- ▶ 56K modem
- ▶ 10/100BASE-T Ethernet port
- ▶ AirPort ready

**\$1295.00**

Indigo CDW 235690

Ruby CDW 235691

Sage CDW 235694

## Apple iMac DV Special Edition

- ▶ 500MHz PowerPC G3 processor
- ▶ RAM: 128MB std., 1GB max.
- ▶ 30GB hard drive
- ▶ 4X Max DVD-ROM drive
- ▶ 56K modem
- ▶ 10/100BASE-T Ethernet port
- ▶ AirPort ready

**\$1495.00**

Graphite CDW 235696

Snow CDW 235698

## Adobe Photoshop V6.0

Adobe Photoshop® V6.0 software introduces the next generation of image editing with powerful features that delivers the most productive tool set available. Adobe Photoshop V6.0 helps you explore your creativity, work at peak efficiency and achieve the highest quality results across all media.

Upgrade

**\$197.00**

CDW 239229

Full version

**\$599.99**

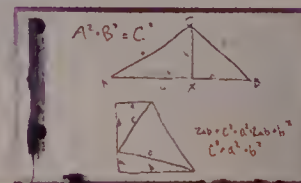
CDW 239227



## mimio™ for the Mac

*Turn any whiteboard into a digital whiteboard*

Attach mimio to any whiteboard and eliminate the need to take notes in meetings, classes or presentations—everything you write and draw is captured to your iMac in color and real-time. Distribute ideas with one-touch print, email, drag, drop or file conversion with mimio for Mac.



**\$599.00** CDW 229562

## Apple Power Macintosh® G4

- ▶ 400MHz PowerPC™ G4 processor
- ▶ RAM: 64MB std., 1.5GB max.
- ▶ 20GB hard drive
- ▶ 4X Max DVD-ROM drive with DVD-video playback
- ▶ 56K modem
- ▶ 10/100 BASE-T Ethernet connection

**\$1595.00** CDW 235684



## Apple Power Macintosh G4 Cube

- ▶ 450MHz PowerPC™ G4 processor
- ▶ RAM: 64MB std., 1.5GB max
- ▶ 20GB hard drive
- ▶ 4X Max DVD-ROM drive
- ▶ 56K modem
- ▶ 10/100BASE-T Ethernet connection
- ▶ AirPort ready with built-in antennas

**\$1795.00** CDW 235622



**Less than 8" high**



Authorized Reseller

VIRTUAL INK™



**Computing Solutions  
Built for Business®**

**www.cdw.com**

**800-509-4239**

All pricing subject to change. For all prices and products, CDW® reserves the right to make adjustments due to changing market conditions, product discontinuation, manufacturer price changes or typographical errors in advertisements. All products sold by CDW are third party products and are subject to the warranties and representations of the applicable manufacturers. Please refer to www.cdw.com for additional terms and conditions.  
©2000 CDW® Computer Centers, Inc. 200 N. Milwaukee Avenue, Vernon Hills, IL 60061 MW6362AB 12/00



## Blistering burns

### APS CD-RW 12x4x32 SCSI

• Special limited-time offer

- Fastest max. record speed ever
- 32x read speed faster than most CD-ROMs
- Ultimate CD drive for content playback, distribution, backup

APS Tech proudly offers our fastest CD-RW drive ever. With 12x max. record speed, you can burn a full disc in only six minutes and send your projects out quicker. Ships with Toast for Mac, Easy CD Creator for PC, and Direct CD for PC to get you going right away.

**\$299.95**

after rebate  
APS Pro2



### APS CD-RW 16x10x40 FireWire

- Speedy CD-RW drive with convenient IEEE 1394 interface
- Hot-swappable, great for sharing among workstations

Take away the hassle of device IDs and terminators, and add unprecedented speed, ease-of-use and compatibility. What have you got? FireWire. The APS CD-RW 16x10x40 FireWire enables you to burn CDs faster than you ever imagined, not to mention an amazing buffer size of 2MB to minimize underruns. If you want to burn CDs with your new FireWire-based computer, order the APS FireWire CD-RW today.

**\$389.95**

APS Pro2

## Be a driving force



**\$749.95**

APS Pro2

### APS 4.7GB DVD-RAM FireWire

- Rewritable DVD discs for archiving or digital video storage
- Back up 4.7 GB (native), 9.4GB (compressed) with IEEE 1394/FireWire interface



**\$559.95**

Internal Configuration

### APS ST 18GB

#### Ultra160 LVD SCSI 15,000 rpm

- 15,000 rpm LVD drives offer you fastest reliability and performance, EVER
- Average seek times as fast as 3.9ms

#### APS Ultra2 Wide / Ultra160 LVD SCSI Drives

Model	RPM	*Internal	APS Pro
APS ST 9GB Ultra160 LVD	7200	\$229.95	\$299.95
APS ST 9GB Ultra160 LVD	10,000	329.95	399.95
APS ST 18GB Ultra160 LVD	7200	339.95	409.95
APS ST 18GB Ultra160 LVD	10,000	449.95	519.95
APS ST 18GB Ultra160 LVD	15,000	559.95	629.95
APS ST 36GB Ultra160 LVD	10,000	699.95	769.95
APS ST 73GB Ultra160 LVD	10,000	1,219.95	1,299.95

Drives listed above carry a five-year warranty.

\* Internal configuration does not include a mounting bracket. Intended as a replacement internal SCSI drive.



**\$399.95**

APS Pro2

### APS 45GB FireWire Hard Drive

- Easiest connections ever – hot-swappable, no terminator or device ID
- Ideal for personal video storage and editing, large-scale imaging/graphics

#### APS USB and FireWire Hard Drives

Model	APS Pro2
APS 10GB USB Hard Drive	\$169.95
APS 20GB USB Hard Drive	199.95
APS 30GB 7200 RPM FireWire Hard Drive	299.95
APS 45GB 7200 RPM FireWire Hard Drive	399.95
APS 75GB 7200 RPM FireWire Hard Drive	749.95



Drives on these pages are covered by the APS 30-Day Money-Back Guarantee.

#### APS CD-RW Drives

Model	Price
APS CD-RW 4x4x24 USB Pro2	\$229.95
APS CD-RW 8x8x24 SCSI Pro2	289.95
APS CD-RW 12x4x32 SCSI Pro2	299.95
APS CD-RW 16x10x40 FireWire Pro2	389.95

\* with \$30 mail-in rebate



**\$419.95**

APS Pro

### APS ST 18GB Ultra SCSI

- Sixth-generation Barracuda mechanism
- Perfect for design/publishing with an ultra-low price

#### APS Ultra SCSI Drives

Model	RPM	*Internal	APS Pro
APS ST 9GB	7200	\$239.95	\$299.95
APS ST 18GB	7200	349.95	419.95

Drives listed above carry a five-year warranty.

#### APS IDE Ultra ATA/66 Drives

Model	RPM	Internal
APS 10GB IDE	5400	\$119.95
APS 30GB IDE	7200	199.95
APS 45GB IDE	7200	349.95

Drives listed above carry a one-year warranty.

### APS 30GB FireWire Hard Drive with EditDV for Mac and PC

- Now, save \$30 when you purchase an APS 30GB FireWire Hard Drive/EditDV bundle

**\$769.95**

APS Pro2



Visit our closeout page at:  
[www.apstech.com](http://www.apstech.com)



# your visions reality.

## Protect your valuables

### APS HyperDAT® III SCSI

- 12GB (native), 24GB (compressed) backup for high-end workstations, entry-level networks
- Reliable DDS-3 technology at industry-low price

**\$799.95**

APS Pro2 case with Retrospect software for Mac and PC



### APS HyperDAT® IV LVD

- Longer tape, higher density vault DDS-4 into corporate network backup
- 20GB native capacity, 2-3 MB/s transfers

**\$1,099.95**

APS Pro2 case with Retrospect software for Mac and PC

### APS Tape Backup

Model	Price
APS HyperDAT® III (DDS-3) SCSI Pro2	\$799.95
APS HyperDAT® IV (DDS-4) LVD Pro2	1,099.95
APS DLT8000 LVD	4,199.95
APS AIT PLUS Ultra Wide Pro	1,699.95
APS AIT II LVD Pro	3,299.95
APS AIT Autoloader Ultra Wide	3,599.95
APS AIT II Autoloader LVD	5,499.95
APS DDS-4 Autoloader LVD	3,499.95

Ships with Retrospect software for Mac and PC



Epson Stylus 1520 Color Printer

### Canon Elura2 Digital Video Camcorder

- 10X optical/40X digital zoom lens
- IEEE 1394 (FireWire) terminal
- Analog line-in for preserving originals, making copies



**CALL**

**Bring it into focus**

### Sony CyberShot DSC-S50

- 2.1 megapixel Super HAD™ image sensor
- 3x optical zoom, 6x precision digital zoom



**\$599.95**

### Digital Cameras\*

Model	Price
Sony Digital CyberShot DSC-S30	\$499.95
Sony Digital CyberShot DSC-S50	599.95
Sony Digital CyberShot DSC-S70	799.95
Nikon Coolpix 800	549.95
Nikon Coolpix 950	799.95
Nikon Coolpix 990	899.95
Canon PowerShot S10	499.95
Canon PowerShot S20	699.95

### Sony Multiscan SDM-N50 15" (viewable) LCD Display

- Incredible 1/2" thin screen, under six pounds
- Best of Show winner, COMDEX '99



**\$1,499.95**

**Call 800 - 874 - 1429**

### Printers / Scanners

Model	Price
<b>Printers</b>	
EPSON Stylus 900 Color Printer	\$399.95
EPSON Stylus Photo 1270 USB Color Printer	499.95
EPSON Stylus 1520 Color Printer	499.95
EPSON Stylus 3000 Color Printer	1,249.95
EPSON Stylus Pro 5000 Color Printer	2,999.95

### Scanners

UMAX Astra MX3	\$199.95
UMAX Astra 2400S	299.95
UMAX PowerLook III w/ Trans. Adapter	1,199.95
UMAX PowerLook 1100 w/Photoshop	1,399.95
UMAX PowerLook 2100XL	2,199.95
UMAX Mirage II	1,999.95

### Power Management

Model	Price
APC Surge Station Pro 8	\$32.95
APC Surge Station Pro 8 w/ 2 Tel	37.95
APC Net 8 Surge Station	33.95
APC Net 8 Surge Station w/ Net P	47.95
APC Line Conditioner, R-600 APC	99.95
APC Line Conditioner, R-1250 APC	129.95
APC BackUPS Pro 280S APC	134.95
APC BackUPS Pro 420S APC	229.95
APC BackUPS Pro 650S APC	269.95
APC BackUPS Pro 1000S APC	389.95
APC BackUPS Pro 1400S APC	499.95

\* These products are not covered by the APS 30-Day Money-Back Guarantee. Products are covered by their manufacturer's warranty.

Mac OS is a registered trademark of Apple Computer, Inc. APS and APS Tech are registered trademarks. Other brand or product names are registered trademarks or trademarks of their respective holders.

• 30-day money-back satisfaction on all APS brand drives and accessories. Your risk is the cost of shipping. Monitors and 3rd party products carry warranties from their respective manufacturers.  
• SCSI cables may be purchased separately.  
• APS' warranty is a pass-through of the mechanism manufacturer's warranty which will be serviced by APS for one year. APS warrants APS branded enclosures, brackets and power supplies for a period of one year from the date of purchase and will, at its discretion, replace or repair products found to be defective according to the specific terms of the warranty accompanying the product.  
• Refused orders subject to 20% restocking fee

• International customers must pay for all shipping charges.  
• Prices and specifications are subject to change without notice.  
• Not responsible for typographical errors.  
• Your APS Drive unit may contain one or more components that were in prior use, but which have been inspected and repaired or rebuilt as necessary. These components, if any are covered by the same warranty provisions, exclusions and limitations to the same extent, and on the same terms as otherwise "new" components.  
• © 2000, APS Tech. All Rights Reserved.



Advanced tools for digital visionaries™



Corporate Sales (800) 395 - 5871 • International (503) 844 - 4600

5am - 10pm, Monday - Friday, 6am - 8pm Saturday - Sunday, Pacific Time

Circle 56 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

[www.macworld.com](http://www.macworld.com) December 2000 161



### Castlewood Drives



**Castlewood**  
ORB™ 2.2GB USB External Drive  
• Compact drive uses packet-sized removable disks  
• 2.2GB capacity • Fast 12Mb/sec. maximum data transfer rate • For PC & Mac • Requires DRB™ disks  
**\$199.99** (CMN ORB2UE01)  
ORB™ 2.2GB SCSI External Drive For PC/Mac®  
(CMN ORB2SE09) **\$179.99**  
ORB™ 2.2GB Disk • PC or Mac® formatted  
(CMN ORB12P01)/PC **\$29.99 Each**  
(CMN ORB12M01)/MAC **\$29.99 Each**  
ORB™ 2.2GB Disk 3-Pack • PC or Mac® formatted  
(CMN ORB12P33)/PC **\$69.99 Each**  
(CMN ORB12M33)/MAC **\$69.99 Each**

### CD-ReWritable Drives



**QPS™ Que! FIRE DRIVE**  
8x4x32x External CD-ReWritable Drive With FireWire® Interface  
• Max: 8x-write/4x-rewrite/32x-read • 2MB buffer memory • Stores up to 650MB data/74 minutes audio  
• For iMac™ DV, G3/G4 & IEEE 1394-equipped PCs  
• Includes CD Mastering software: TDAST for Mac, Easy CD Creator for PC • 8000 blue color • Carrying case  
**\$329.99** (QPS RW8432FEMG3)  
**Que! Drive 4x4x8 External CD-ReWritable Drive for the iMac™** • Max: 4x-write/4x-rewrite/8x-read • USB (QPS QP448IMAC) **\$239.99**  
**LaCie 104134 External FireWire™ CD-RW Drive** • Max: 32x-read/12x-write/4x-rewrite • With Adapter™ Toast (4.0) Deluxe (LAC 104134) **\$399.99**

### Macintosh® Software

**Adobe® Photoshop® (6.0)**  
• World-standard image-editing solution for print & the Web  
• Superb vector support  
• Advanced PDF output options  
• Macintosh® CD  
**\$599.99** (ADAM PHOTO6-C) 

**Office 2001 Macintosh Edition**  
by Microsoft® (MSI OFFICE2K1-C) **\$429.99**  
**FLASH® 5**  
by Macromedia® (MNN FLASH5-C) **\$359.99**  
**CodeWarrior® (Version 6.0)**  
by Metro Werks (MWM CODEWAR6-C) **\$359.99**  
**Video- Home Edition**  
by Canon (CAN VIDEO-C) **\$39.99**  
**MacLink® Plus (Version 12) for iMac™**  
by Data Viz (DAM MACLINK12-C) **\$44.99**

### Mac® Entertainment

**Coda Music Finale - Allegro 2000**  
• Easy, fast & powerful music notation • Everything needed to compose, playback & print your music • Designed for the performing musician • Notates as you play • Full MIDI features • CD for Windows®/Mac®  
**\$129.99** (CDO ALLEGRO-CD) 

**Age of Empires**  
by MacSoft (GTA AGEOFEMP-C) **\$16.99**  
**Deus Ex**  
by Aspyr™ (AYA DEUSEX-C) **\$39.99**  
**The Sims** by Aspyr™ (AYA THESIMS-C) **\$44.99**  
**Diablo II For Macintosh®**  
by Blizzard Entertainment (BLZ DIABLO2-C) **\$49.99**  
**National Geographic: 111 Years**  
by Broderbund (BRI NATGE0111-C) **\$99.99**

# J&R COMPUTER WORLD

**WALK IN** Park Row NYC  **PHONE IN** 800-221-8180 ANYTIME  **LOG IN** www.jandr.com AOL Keyword: J&R 

## Apple® Macintosh® G3 & G4 Computers!



**The luscious new iMac™ models in Indigo, Ruby, Sage, Graphite and Snow can get you online and surfing the Internet in 10 minutes!**

**Apple® G3 iMac™/350 64/7GB/CD All-In-One Computer**  
• 350MHz PowerPC™ G3 processor • 64MB SDRAM • 7GB HD • 24x max. CD-ROM • 10/100Base-T • V.90 modem • 15" color display • Mac® OS 9 • Indigo  
**\$799.99** (APP M7667LL/A) INDIGO

**Apple® G3 iMac™ DV/400 64/10GB/CD All-In-One Computer**  
• 400MHz PowerPC™ G3 processor • 64MB SDRAM • 10GB HD • 24x max. CD-ROM • Digital Video • 10/100Base-T • V.90 modem • 15" color display • Mac® OS 9  
**\$999.99** (APP M7639LL/A) INDIGO (APP M7706LL/A) RUBY

**Apple® G3 iMac™ DV+/450 64/20GB/DVD All-In-One Computer**  
• 450MHz PowerPC™ G3 processor • 64MB SDRAM • 20GB HD • 4x max. DVD-ROM • Digital Video • 10/100Base-T • V.90 modem • 15" color display • Mac® OS 9  
**\$1299.99** (APP M7647LL/A) INDIGO (APP M7652LL/A) RUBY (APP M7676LL/A) SAGE

**Apple® G3 iMac™ DV Special Edition/500 128/30GB/DVD All-In-One Computer**  
• 500MHz PowerPC™ G3 processor • 128MB SDRAM • 30GB HD • 4x max. DVD-ROM • Digital Video • 10/100Base-T • V.90 modem • 15" color display • Mac® OS 9  
**\$1499.99** (APP M7651LL/A) GRAPHITE (APP M7709LL/A) SNOW

**3-Year AppleCare® Protection Plan for iMac™ computers** • Comprehensive service and support program that includes 3 years of telephone support (extended from the 90 days included with the product); 3 years of service coverage (two years beyond the limited warranty); Tech Tools Deluxe by Micromat diagnostic CD; access to 24-hour-a-day Internet support (APP M7812LL/B)... **\$149.99**

**The PowerMac™ G4 Cube. A Very Expandable Supercomputer In An 8" Cube, Suspended In A Crystal-Clear Enclosure!**

**Apple® Power Mac™ G4 Cube/450 64/20GB/DVD**  
• 450MHz PowerPC™ G4 processor w/Velocity Engine™ • 64MB SDRAM • 20GB HD • DVD-ROM • 16MB VRAM • V.90 modem • 10/100BASE-T • Mac® OS 9 • Monitor sold separately  
**\$1799.99** (APP M7642LL/A) 

**Apple® iBook™ Special Edition G3/466 64/10GB/DVD Notebook Computer**  
• 12.1" TFT SVGA • 466MHz PowerPC™ G3 processor • 64MB SDRAM • 10GB HD • 6x max. DVD RDM • BMB VRAM • V.90 modem • 10/100BASE-T • Graphite  
**\$1799.99** (APP M7720LL/A)

**Apple® iBook™ G3/366 64/10GB/CD Notebook Computer**  
• 12.1" TFT SVGA • 366MHz PowerPC™ G3 processor • 64MB SDRAM • 10GB HD • 24x max. CD RDM • BMB VRAM • V.90 modem • 10/100BASE-T • Indigo  
**\$1499.99** (APP M7721LL/A)

**Apple® Macintosh® PowerBook® G3/400 64/10GB/DVD**  
• 14.1" TFT XGA • 400MHz PowerPC™ G3 processor • 64MB SDRAM • 10GB HD • DVD-ROM • BMB VRAM • V.90 modem • 10/100BASE-T • 2-FireWire®/2-USB ports  
**\$2499.99** (APP M7711LL/A)

**Apple® Macintosh® PowerBook® G3/500 128/20GB/DVD**  
• 14.1" TFT XGA • 500MHz PowerPC™ G3 processor • 128MB SDRAM • 20GB HD • DVD-ROM • 8MB VRAM • V.90 modem • 10/100BASE-T • 2-FireWire®/2-USB ports  
**\$3499.99** (APP M7712LL/A)

**Apple® Studio Display Monitors**

**Apple® 17" Studio Display** • 16" VIS • 0.25mm aperture grille pitch • Up to 1600 x 1200 pixels at 65Hz • Virtually flat • ColorSync® • 2-port self-powered USB hub... **\$499.99** (APP M7770ZM/A)

**Apple® 15" Flat Panel Studio Display** • Ultra-thin • 15" active-matrix LCD • Up to 1024 x 768 pixels • Touch-sensitive buttons with visual feedback • 2-port self-powered USB hub... **\$999.99** (APP M7928ZM/A)

**Apple® 22" Cinema Display™** • 22" viewable image offers a panoramic view—enough to view as much as 2 full A4 pages of text, edit DVD movies in their native DV format • Active-matrix LCD • Up to 1600 x 1200 pixels • Wide viewing angle of 160° horizontal & vertical • Anti-glare screen • Support for 16.7 million colors • 2-port self-powered USB hub... **\$3999.99** (APP M8058ZM/A)

**3-Year AppleCare® Protection Plan for PowerMac G series computers and Apple display** • Comprehensive service and support program that includes 3 years of telephone support (extended from the 90 days included with the product); 3 years of service coverage (two years beyond the limited warranty); Tech Tools Deluxe by Micromat diagnostic CD; access to 24-hour-a-day Internet support • Apple display is included if purchased at the same time as CPU (APP M7811LL/B)... **\$249.99**

PowerPC and the PowerPC logo are trademarks of International Business Machines Corporation, used under license therefrom.

**Order from www.jandr.com AOL Keyword: J&R**

**J&R CORPORATE SALES BUSINESS LEASING:**  
**No Money Down, No Payments for 30 Days!**  
\*Call J&R Corporate Sales for details at 1-800-221-3191 or 1-212-238-9080 

### Olympus

**OLYMPUS**  
**USB For MAC®/PC!** 

**Olympus Camedia E-10 SLR Digital Camera**  
• 4 megapixel • Up to 2240 x 1680 • 4x pro glass zoom lens • 1.8" color LCD • SmartMedia™/CompactFlash™ • NTSC out capability • USB • Windows®/Mac®  
**\$1999.99** (OLM E10SLR)

**Camedia E-100 RS SLR Digital Camera**  
• Up to 15 fps • 1.51 megapixel • Up to 1368 x 1024 • 10x zoom/2.7x digital lens • 1.8" color LCD monitor • SmartMedia™/CompactFlash™ slot • USB • Windows/Mac (OLM E100RS) **\$1499.99**

**C-2100 Ultra Zoom Digital Camera**  
• 2.11 megapixel • Up to 1600 x 1200 • 10x-optical zoom/2.7x digital zoom • Image stabilizer • 16MB buffer • 1.8" TFT LCD • 0.55" TFT EVF-SLR viewfinder • USB/serial (OLM C2100ULTRAZ) **\$999.99**

**P-400 Digital Printer** • True, continuous-tone dye sublimation technology • 7.7 megapixel • Approx. sec. print speed • 16.7 millions colors • USB port • Windows/Mac compatible (OLM P400) **\$999.99**

### CANON Digital Camcorder

**Canon GL1 Digital Camcorder**  
• 3CCD image sensors • 20x Flurite-optical/100x-digital zoom • Optical stabilizer • 2.5" LCD view screen • Color viewfinder • IEEE 1394 • **CALL FOR PRICE!** (CAN GL1)

### SONY Digital Camcorder

**SONY** 

**Sony DCR-TRV11 Digital Camcorder**  
• DSC function with 4MB Memory Stick • 3.5" SwivelScreen™ • 10x-optical Carl Zeiss®/120x-digital zoom • Color viewfinder • SteadyShot™ • iLINK™ • **CALL FOR PRICE!** (SON DCRTRV11)

**DCR-TRV820 Digital 8 Digital Handycam™**  
• Built-in color printer • DSC with Memory Stick • 4" SwivelScreen™ • 25x-optical/450x-digital zoom • Color viewfinder • SteadyShot™ • iLINK™ • Super NightShot™ • Photo mode (SON DCRTRV820) **CALL FOR PRICE!**

**DCR-PC100 Digital Handycam™ Camcorder**  
• 1,070K pixel CCD • 10x-optical/120x-digital zoom • 2.5" SwivelScreen™ • Color viewfinder • NightShot™ • Digital photo mode • iLINK™ (SON DCRPC100) **CALL FOR PRICE!**

### Scanners

**Canon**  
**NEW! FOR PC & MAC!** 

**Canon N656U CanoScan**  
42-Bit Color USB Ultra-Slim Flatbed Scanner  
**\$129.99** (CAN N656U)

**UMAX® Astra 4000U 42-Bit Color Scanner**  
• USB for Mac or PC (UMX ASTRA4000U) **\$199.99**  
**Get A \$20 MFR Mail-In Rebate—Thru 12/31**

**Micratek ScanMaker® 4700 Flatbed Color Scanner** (MTK SCANMK4700) **\$239.99**  
**Get A \$20 MFR Mail-In Rebate—Thru 12/31**

**HP ScanJet 5370Cse 42-Bit Color Flatbed Scanner** • 1200-dpi color • Transparency adapter • USB/Parallel • Mac/PC (HP CB472A) **\$299.99**

**EPSON® Perfection™ 1200U PHOTO Flatbed Color Scanner** (EPS 1200UTPHOTO) **\$299.99**

**To Order Toll Free and Receive a Free Catalogue**  
**24 Hours, 7 Days, Anywhere In The USA**  
**800-221-8180**  
PARK ROW • NEW YORK • NY • 10038 FAX: 1-800-232-4432

**All Major Credit Cards Accepted**  
**Overnight Delivery Available!**  
**Order Code: MW012**  
(Prices Good Until 12/15/00)

Not responsible for typographical or pictorial errors. Merchandise is brand-new, factory-fresh & 100% guaranteed! ♦ Except where noted! Some quantities may be limited.



Here's this month's hot features. Check out more at [www.megahaus.com/mac](http://www.megahaus.com/mac)

## USB Hard Drive

### USB

20.4GB Ext.

Also avail in 6, 8 & 13 GB  
For Mac or PCs!

**\$179**

(USB20GB)

## Laser Printers



**HEWLETT\*  
PACKARD**  
COLOR  
LASERJET  
Networking,  
200MHz,  
64MB RAM  
(C7098A) **\$7295**

**EPSON**

8ppm  
iMac compatible  
1200dpi  
huge toner  
cartridge  
**CALL!**  
(C363001) **\$349**

## Hard Drive

**Quantum**

18.4 GB \$415

**SCSI Ultra 160**

Int. (TY318400LW)

Ext. \$545

(TY318400LWX)

## Hard Drive

**Seagate**

9.2 GB \$254

**SCSI Ultra 160**

Int. (ST39204LW)

Ext. \$384

(ST39204LWX)

## Monitors

**ViewSonic**

18" Pro

"Plug N Play"

(PF790) **\$509**

See our complete selection  
on our website under the  
the Monitors listing.

## InkJet Printers



**HEWLETT\*  
PACKARD**  
Crisp color,  
5-10 users  
7MHz,  
20MB RAM  
(C2685A) **\$1449**

**EPSON**

iMac or  
PowerMac  
Choose  
from 4 colors  
**CALL!**  
(C257111) **\$119**  
We've got paper, ink and toner cartridges. CALL.

## CD-Rewritable Drive

**YAMAHA**

8x8x24 **SCSI CDR-W**

w/Mastering Soft. & 1 disk

Int. (YCRW8824S) **\$215**

Ext. (5 disks + ISA controller) (YCRW0024SX) **\$255**

## 250MB ZIP Drive

250MB

ZIP Ext.

Drive

**iomega**

(ZIP 250) **Just \$149**

**SCSI Mac or PC**

250MB disks

\$17 each

(ZIP250C)

## HARD DRIVES

**Quantum**

ULTRA 160 SCSI (Call for deals on our externals) Int.

9.1GB	7200	4MB	XC309100LW	\$185
9.2GB	10,000	8MB	TY309200LW	\$299
18.3GB	7200	4MB	XC318400LW	\$305
18.4GB	10,000	8MB	TY318400LW	\$415
36.7GB	7200	4MB	XC336700LW	\$609
36.7GB	10,000	8MB	TY336700LW	\$679
73.4GB	10,000	8MB	TY373400LW	\$1313

IDE ULTRA ATA/66

7.5GB	5400	512K	QML07500LC	\$74
10.2GB	7200	2MB	QMP10200LM	\$95
15.0GB	5400	512K	QML15000LC	\$85
15.0GB	7200	2MB	QMP15000LM	\$103
20.0GB	5400	512K	QML20000LC	\$130
20.5GB	7200	2MB	QMP20500LM	\$103
30.0GB	5400	512K	QML30000LC	\$124
30.0GB	7200	2MB	QMP30000LM	\$167

**IBM**

ULTRA 160 SCSI

9.1GB	7200	4MB	07N3120	\$225
9.1GB	10,000	4MB	07N3220	\$238
18.2GB	7200	4MB	07N3110	\$343
18.3GB	10,000	4MB	07N3210	\$349
36.4GB	7200	4MB	07N3100	\$575
36.4GB	10,000	4MB	07N3200	\$569

IDE Ultra ATA/100

20.5GB	5400	512K	07N3924	\$97
20.5GB	7200	2MB	07N3928	\$146
30.7GB	7200	2MB	07N3929	\$159
46.1GB	7200	2MB	07N3931	\$224
61.4GB	7200	2MB	07N3933	\$429
76.8GB	7200	2MB	07N3935	\$555

**WESTERN DIGITAL** Call for WD

Firewire drives!

IDE Ultra ATA/66

10.2GB	7200	2MB	WDAC102BA	\$102
15.3GB	5400	512K	WDAC153AA	\$91
15.3GB	7200	2MB	WDAC153BA	\$115
20.5GB	5400	512K	WDAC205AA	\$132
20.5GB	7200	2MB	WDAC205BA	\$129
30.0GB	5400	512K	WDAC307AA	\$131
45.0GB	5400	2MB	WDAC450AA	\$182

**FUJITSU**

IDE Ultra ATA/66

10.2GB	5400	512K	MPF3102AT	\$78
10.2GB	7200	2MB	MPF3102AH	\$83
15.3GB	5400	512K	MPF3153AT	\$88
20.4GB	5400	512K	MPF3204AT	\$99
20.4GB	7200	2MB	MPF3204AH	\$126

**Maxtor**

IDE Ultra ATA/100

20.0GB	2MB	7200	M52049H4	\$119
20.4GB	512K	5400	M32049H3	\$99
30.0GB	2MB	7200	M53073H6	\$159
30.7GB	512K	5400	M33074H4	\$119
40.0GB	2MB	7200	M54098H8	\$209
61.4GB	2MB	5400	M96196H8	\$251
81.9GB	2MB	5400	M98196H8	\$319

## HARD DRIVES

**Seagate**

ULTRA SCSI (Call for deals on our externals) Int.

9.2GB	7200	2MB	ST39216N	\$229
18.4GB	7200	2MB	ST318416N	\$339

ULTRA WIDE SCSI (Call for deals on our externals)

9.2GB	7200	2MB	ST39216W	\$229
18.4GB	7200	2MB	ST318416W	\$339

Ultra 160 SCSI (Call for deals on our externals)

9.2GB	7200	2MB	ST39236LW	\$229
9.2GB	7200	4MB	ST39236LVW	\$243
9.2GB	10,000	4MB	ST39204LW	\$254
18.2GB	10,000	4MB	ST318404LW	\$373
18.4GB	7200	2MB	ST318436LW	\$325
18.4GB	7200	4MB	ST318436LVW	\$342
18.4GB	15,000	4MB	ST318451LW	\$495
36.7GB	10,000	4MB	ST336704LW	\$611
36.7GB	10,000	16MB	ST336704LVW	\$633
73.4GB	10,000	4MB	ST173404LW	\$1095
73.4GB	10,000	16MB	ST173404LVW	\$1109

IDE Ultra ATA/66

10.2GB	7200	2MB	ST310210A	\$97
15.3GB	7200	2MB	ST315320A	\$103
20.4GB	7200	2MB	ST320420A	\$127
30.6GB	7200	2MB	ST330630A	\$165

Visit our website under megahaus.com/sea for the latest

deals on Seagate hard drives and tape drives.

## 2.5" IDE LAPTOP

6.0GB	9.5mm	Toshiba	MK6015MAP	\$125
10.0GB	9.5mm	Toshiba	MK1016GAP	\$163
20.0GB	9.5mm	Toshiba	MK2016MAP	\$265
5.0GB	9.5mm	IBM	07N4391	\$119
10.0GB	9.5mm	IBM	07N4390	\$159
20.0GB	9.5mm	IBM	07N4383	\$279
30.0GB	12.5mm	IBM	07N4392	\$399

6.0GB 9.5mm Hitachi DK23AA60 \$126

10.0GB 9.5mm Hitachi DK23BA10 \$159

20.0GB 9.5mm Hitachi DK23BA20 \$259

Nobody beats us for Laptop accessories - Call us

## Make it REMOVABLE



Turn your drives into  
removables with these  
high quality DataPort™  
drive cartridges and  
frames. Ultra Security.

**DataPort VI - COMPLETE KIT - Platinum Finish**

Includes 1 frame, 1 cartridge, mounting screws, & 2 keys.

Ultra SCSI \$108 (DP2200SM)

Ultra Wide SCSI \$128 (DP2200UWM)

**Extra Cartridge/Frame**

Ultra SCSI \$61/\$54 Kits also

Ultra Wide SCSI \$75/\$61 available in

a Black Finish

We also carry DataPort IV, V, VII and VIII. Call

or visit our website at: [megahaus.com/dataport](http://megahaus.com/dataport)

With all the talk about drive shortages, you'll probably

find it at MegaHaus - so call us - we are #1 in the US!

We have more than 90 power backup  
solutions and can create custom con-  
figurations to suit your networking

Protect  
Your  
Data!

## CD ROM

• SCSI Internals • Call About Our Externals

Teac	CD532S	32X	85ms	\$72
Plextor	PX32CS (caddy)	32X	85ms	\$130
NEC	CDR3010	40X	85ms	\$69
Toshiba	XM6401B	40X	85ms	\$64
Plextor	PX40TS	40X	85ms	\$89
Kenwood	UCR415	52X	90ms	\$143

• WIDE SCSI •

Plextor PX40TSUW 40X 85ms \$99

• IDE •

Teac	CD540E	40X	85ms	\$43
NEC	CDR3000	40X	75ms	\$43
Mitsumi	CRMCFX48X	48X	65ms	\$41
Creative	SBCD52	52X	100ms	\$40
Kenwood	UCR412	52X	90ms	\$79
Kenwood	UCR421	72X	90ms	\$110

• CD CHANGER •

Pioneer 24 X6 Disc Ext. SCSI (DRM6324X) \$395

## TAPE BACKUP

Capacity Native-Compressed Max. Speed

Back Up Be Safe!

• 4mm DAT •

24GB	66MB/min	Seagate STD24000N	\$413
4.8GB	30MB/min	Seagate STT28000N	\$215
4.8GB	66MB/min	Seagate DDS-2 STD28000N	\$509
4.8GB	90MB/min	Sony SDT7000AI	\$419
4.8GB	60MB/min	HP C1599AI	\$495
12.24GB	144MB/min	Sony DDS-3 SDT9000AI	\$579
12.24GB	120MB/min	HP DDS-3 C1554AI	\$689
20.40GB	288MB/min	Sony DDS-4 SDT11000AI	\$819
48.96GB	66MB/min	Seagate DDS-2 STL496000N	\$1599
72.144GB	120MB/min	HP 6 tape load DDS 3 C5648A	\$1599

• EXABYTE 8mm DAT •

7-14GB 120MB/min ELIANT820 \$1169

20-40GB 360MB/min EXB8900 \$1879

140-280GB 180MB/min EZ17SWK \$4499

• QUANTUM DLT •

20-40GB 180MB/min DLT4000 \$1285

40-80GB 600MB/min DLT8000 \$3659

Visit [www.megahaus.com](http://www.megahaus.com) for unbeatable deals on tape media!

## ZIP, JAZ & OPTICAL

• 100MB Zip Int. SCSI/Ext. USB

250MB Zip Ext. SCSI for PC or Mac

2GB Jaz External SCSI

1GB Jaz disk 2-4/5-9/10+ \$80/77/75

2GB Jaz disk 2-4/5-9/10+ \$85/80/77

Sony Magneto Optical

5.2GB SCSI-2 Int. 4MB buffer (SMOP551) \$1399

5.2GB SCSI-2 Ext. 4MB buffer (SMOP551X) \$1539

5.2GB optical media (SMAX52) 1-4/5-9/10+ \$83/80/77

Para Llamadas en Español:

**1-800-786-1174**

MegaHaus is THE industry leader. Since 1987, we've  
been providing unlimited technical support & full  
manufacturer's warranties on all products we carry.  
Questions? Call us. We're here to earn your business.

## CD MEDIA

**Nobody Beats MegaHaus on CD  
Media Pricing.... NOBODY!**

CD RECORDABLE MEDIA

12X Max Speed S/20/S0/100 Pack

[CDR74B-S/20/S0/100] \$5/\$18/\$42/\$78

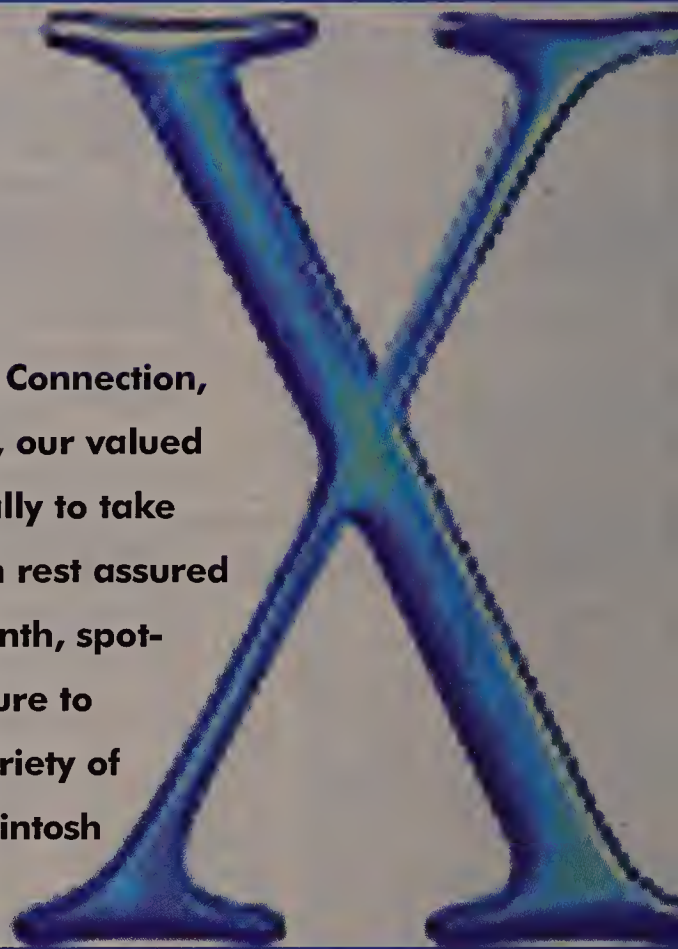
80 MINUTE MEDIA

12X Max Speed S/20/S0/100 Pack

[CDR80-S/20/S0/100] \$4/\$13/\$32/\$59



# Welcome to the Apple OS X Showcase



Macworld magazine, in conjunction with the Apple Developer Connection, built this very special Mac OS X Showcase section to keep you, our valued reader, apprised of the hottest products built especially to take advantage of Apple's new operating system. You can rest assured that this new section will grow with each passing month, spotlighting the coolest new products for Mac OS X. Be sure to check the Mac OS X Showcase monthly for a wide variety of new and innovative solutions that will make your Macintosh and Mac OS X experience as enjoyable as possible.



## Sharing the Internet was never easier or faster.

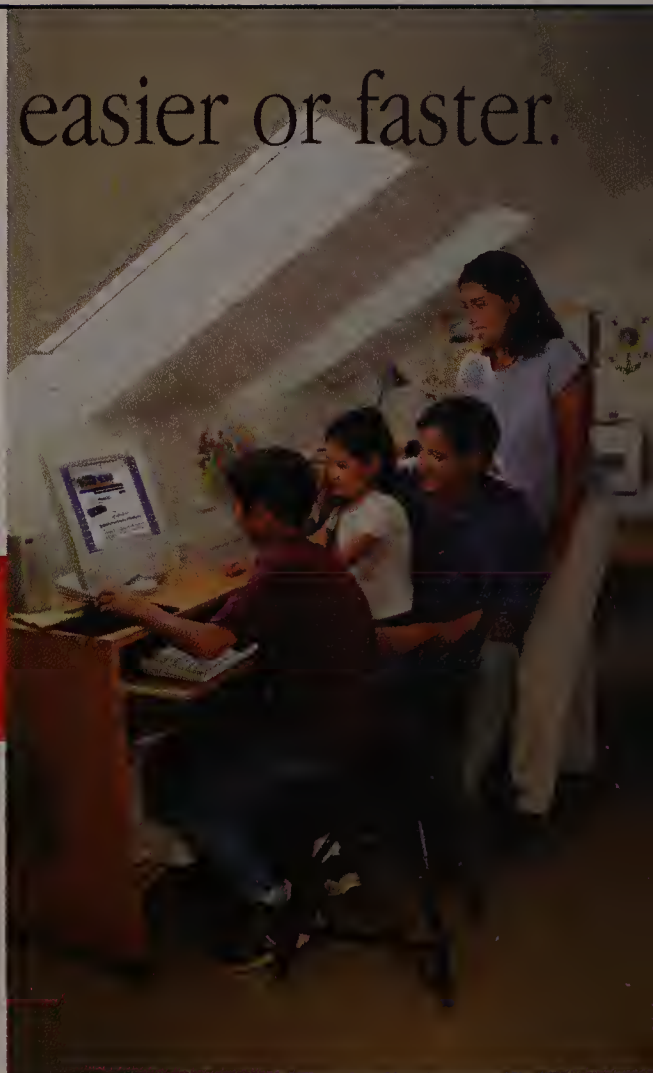
Asanté's new FriendlyNET™ routers are ideal for sharing high-speed Internet connections in your home or office. Just connect multiple Macs and PCs to share your cable modem or DSL Internet service. Advanced firewall security with integrated 4-port 10/100 switch gives you the power and flexibility to start or expand your network.



FriendlyNET Cable/DSL Routers  
Models FR3004LC and FR3004

**Act now and save! Asanté is offering FriendlyNET Routers at a special introductory price for Mac customers. Call 800-566-6680 or visit our website at [www.asante.com/mac](http://www.asante.com/mac)**

**ASANTÉ**  
[www.asante.com](http://www.asante.com)





# Memory / Upgrades

For PC, MAC and Notebook.

**Wholesale to the public.**



el:(310) 649-4141 • [www.bigorangetech.com](http://www.bigorangetech.com)

# FUNNELWEB

now for the Mac OS X

FunnelWEB

Any Server, Any Platform, Any Time

Speed, intuitive user interface, accuracy and in-depth analysis have always made Funnel Web the intelligent choice for Web site analysis.

New features:

- pdf Output
- Incremental Analysis
- Cluster Analysis
- Streaming Media Analysis
- Clickstream Analysis
- Solutions available from **\$399**

For further information or to download a free 30 day demo visit our web site:

Toll free 1800 551 5282

[www.activeconcepts.com](http://www.activeconcepts.com) [info@activeconcepts.com](mailto:info@activeconcepts.com)

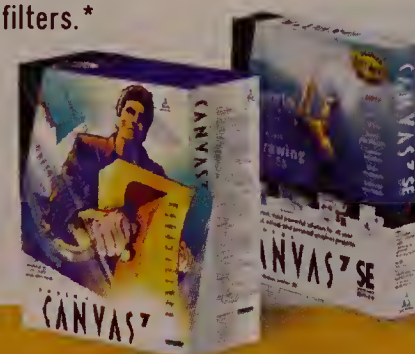
# Illustration never looked so good.

Eye-catching illustration, isn't it? And yes, despite the glistening highlights, the realistic textures, the subtle shading, and the soft air-brushed effects, this is a completely vector illustration. And it's only possible with Canvas 7.

Match pinpoint precision with painterly strokes through Canvas 7's exclusive Sprite technology. Blur vector lines, paint transparency effects, apply image filter plug-ins to vectors, text and images. It's hard to believe that you can draw like this — never mind in one, attractively priced program. When you're done, prepare your creative visions for print or web with an incredible array of over 40 file format filters.\*

Feast your eyes on Canvas 7 today, and get a whole new outlook on illustration software.

**Now available in Professional and Standard Editions**



DENEBA  
**CANVAS 7**

[www.deneba.com/macworld](http://www.deneba.com/macworld)  
800.7DENEBA

No comparison.

**Get Canvas 7 today!**

Professional Edition \$375  
Competitive Upgrade \$199.95  
Standard Edition \$99.95



## Macworld Showcase Featured Advertisers

## Developer Showcase

Rhinoskin	rhinoskin.com
Mace Group	mocolly.com
Contour Design	contourdesign.com
Griffin Technology	griffintech.com
Century Global	centuryglobol.com
Keyspan	keyspon.com
Ratoc Systems	rotocsystems.com
Dr. Bott	drbott.com
Musitek	musitek.com
ADS Technologies	odstech.com
EZQuest	ezq.com
Lind Electronics	lindelectronics.com
Adesso	odessoinc.com
Strydent	strydent.com
Momentum	momentumus.com
Marathon Computer	marathoncomputer.com
Pilot Technologies	pilottech.com
STAZ Software	stazsoftware.com

BellStor	bellstor.com
Omnis	omnis.net
POS Direct	posdirect.com
Worth Data	BorCodeHQ.com
Biomorph	biomorphdesk.com
IntelliTech	moclobel.com
Fuller Creative	squiggles.com
Music Industries Corp.	musicindustries.com
Strider Software	typestyler.com
OnADime	onodime.com
iProof Systems	iproofsystems.com

## Services Showcase

Presentation Services	imogers.com
Copy Craft	copycraft.com
Creative Juices	bigposters.com
Postcard Press	postcardpress.com
Show and Tell	show-tell.net
Postscript Press	psprint.com
Interland	interland.com
NetNation	netnotion.com

Drive Savers	drivesavers.com
Nick Major's	dotorec.com
Microcom	mcrocovery.com
Total Recall	totalrecall.com
Lazarus	lozorus.com
Silicon Valley CD	svcd.net
Mac Academy	mococodemy.com

## Direct Showcase

RedLightRunner	redlightrunner.com
Journey Educational Mktg.	JourneyEd.com
Creation Engine	modoboutmoc.com
Software Showcase	softwareshowcase.com
AcademicSuperstore	AcademicSuperstore.com
MacMart	mocmort.com
Compu America	compu-americo.com
MacPro	moc-pro.com
Liquidation Station	liquidotionstation.com
Mac Solutions	mocsolutions.com
Mac of all Trades	mocofalltrades.com
MacResQ	MocResQ.com

PowerMAX	opplemugstore.com
Shreve Systems	shrevesystems.com
Infinity Micro	infinity-micro.com
Innovative Computers	icni.com
Granite Digital	scsipro.com
Data Tech Remarketing	dototech-rmkt.com
Digital Prepress	prepresssystems.com
Mega-Watts	megomocs.com
MacGlobal	globaldeals.com
MCE Systems	powerbook1.com
PowerOn Computers	poweron.com
Image & Business Sol.	imagesolutions4U.com
Mac Power	mocpowerinc.com
Tahoe Peripherals	tohoeperipherals.com
UpgradeStuff	upgradestuff.com
Mac Solutions	mocsolutions.com
Memory Masters	18004memory.com
LLB	llb.com
Data Memory Systems	dotomem.com

For more information contact Niki Stranz or Carol Johnstone at (800) 597-1594.

## Palm Protection Never Looked So Good!

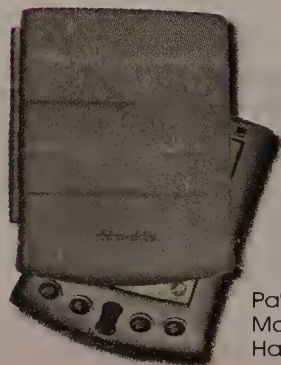
## Protect Your PDA Investment

RhinoSkin offers the most protective line of hardcases, including the Aluminum Molded Hardcase (left) and Titanium Slider Hardcases for the Palm III, IIIc, V and VII

RhinoSkin's line of RhinoPaks, including the RhinoPak 1100 (right), offer a water-resistant outer Cordura layer, along with inner padding and designated storage for credit/business cards, cash, and receipts.

The NEW Executive Leather will accommodate all PDA's and offers designated credit/business card storage with a classy, executive look and the protection RhinoSkin is famous for.

Draw looks in the boardroom, out in the field, and everywhere in between!



Palm V  
Molded  
Hardcase



RhinoPak  
1100



Executive  
Leather Case

rhino skin™

RhinoSkin, Inc.  
970 W. Broadway #495  
Jackson, WY 83001-9475

www.rhinoskin.com/mac

Phone: (307) 734-0633  
Fax: (307) 734-8868  
info@rhinoskin.com



macally

## iwebkey®

USB Wireless Multimedia Keyboard

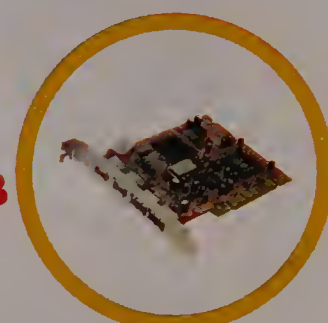


macally™  
AirStick



macally  
ioptinet®

PCI FireWire/USB



macally™

**M**acally is proud to bring you the latest USB and FireWire peripherals for Mac users. Our full line of products are specifically designed for your Mac to improve your productivity. Please visit our website to see what Macally has to offer for all your peripheral needs. We work hard to provide you with the best peripherals for your Mac.

**Call us for dealers near you 1-800-644-1132 or visit us at: [www.macally.com](http://www.macally.com)**

All trademark or registered trademarks are the property of their respective owners

Circle 159 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## Contour MiniPRO Mouse

**Optical technology**  
No mouse ball!

- Stylish compact design is ideal for laptop users on the go. Use it anywhere on any surface
- Utilizes the latest Optical Technology.
- Optimally designed to be comfortable, yet compact
- Unique pack n' go carrying case provides added protection and easy cord storage
- USB Overdrive software allows Mac users to program the secondary button to perform scrolling, contextual menus, double click, etc
- Interchangeable clip-on buttons

**pack n' go**  
carrying case™

Please visit  
[www.contourdesign.com](http://www.contourdesign.com)  
for more details

All trademarks and registered trademarks are the property of their respective owners.

Circle 169 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## iMate

**UNIVERSAL ADB TO USB ADAPTER**  
Easily Connects Any ADB Device To USB-Equipped iMac or PC Computer

The innovative iMate USB to ADB adapter allows users to easily connect their existing ADB peripherals to iMacs, Macs with USB cards, and PCs with USB. The iMate is compatible with any ADB device including mice, keyboards, trackballs, trackpads, hardware dongles, and AppleVision displays. Retail price \$39

80 Fesslers Lane • Nashville, TN 37210  
615.255.0990

**GRIFFIN TECHNOLOGY**

[info@griffintechology.com](mailto:info@griffintechology.com)  
[www.griffintechology.com](http://www.griffintechology.com)

## gPort

**THE SERIAL SOLUTION**

The gPort universal serial adapter is the perfect companion for your new blue G3 computer. Designed from the ground up with the G3 in mind it supports every serial device that works on your older Macs.

- Easy to install
- Economical
- Cost Effective

With the new G3s Apple has made a bold move to faster and more universal i/o interfaces. The gPort provides a great transition for people with existing serial equipment. Retail price \$49



## The Best FireWire Drives for DV Professionals!

### Slim FireWire External Hard Drive

Manhattan Series



#### Perfect for:

- DV Editing.
- DTP.
- Data Archiving.
- MP3 Music Jukebox.

#### Key Features:

- 5 Capacities to choose 20G, 30G, 45G, 60G, 75G.
- Daisy Chain up to 63 devices.
- Hot swappable.
- No device IDs or termination.

30G FireWire External Hard Drive for **ONLY**

**\$289**

9"x5.25"x1.75"

SoHo Pro series



### FireWire/USB 2.5" Combo Drive

Why not have the best of both worlds? Now you can have both FireWire and USB ports in this one mini drive! How convenient!

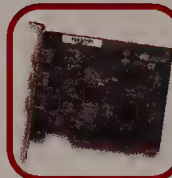
- 6G, 12G, 20G, 25G, 30G available.
- FireWire/USB in the same drive.
- Ultra-portable.
- Hot-pluggable between different computers.

6G

**\$339**

5.67"x3.23"x1.14"

Not responsible for typographical or pictorial errors. The FireWire® logo is a trademark of Apple Computer, Inc., used under license therefrom. All other product names mentioned herein are trademarks or registered trademarks of their respective owners. ©2000 Century Global, Inc. All rights reserved.



### PCI FireWire Card [CG-1394HC]

**\$65**

- Add three FireWire ports to your Mac or PC.
- OHCI compliant.
- Support serial bus data rate up to 400 Mbits/sec.
- Peer to peer communication structure.



### Micro AC Power Adapter [CG-P45W]

**\$79**

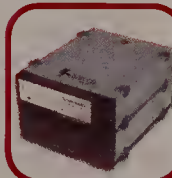
- Smallest AC adapter for Apple PowerBooks.
- For iBook, Pismo, Lombard, Wallstreet, 3400, 2400, 1400.
- 45 Watts, universal auto switching 100-240V.
- Dimensions: 3 1/4"x1 5/8"x7/8".



### USB Slim Floppy Drive [CG-UFD]

**\$65**

- Read and write standard 1.44 MB floppy disks.
- Support Win 98, Win 2000 and Mac OS 8.6 or later.
- USB bus power only. No external power adapter required.



### FireWire HDD CD-RW Case [CG-3525E]

**\$139**

- Accommodate 3.5" or 5.25" IDE/ATAPI drives such as HDD, Zip and CD-RW.
- Plug and play, hot swappable capability.
- No jumper pins or ID setting.
- Built-in 50W power supply; universal auto-switching 90-240V.
- Built-in 40x40 mm fan.

(Note: drives are sold separately)

### DeskTop FireWire External Hard Drive

HOLLYWOOD series

20G FireWire External Hard Drive for



**\$249**

- Lightning speed
- Sleek design
- Reliable storage
- Effortless connectivity
- 5 Capacities to choose 20G, 30G, 45G, 60G, 75G



### iBook Sling-Bag

- Specifically engineered for iBook users.
- Designed to easily carry and protect your investment whether the iBook is in use or in transport.
- Zip to easily close and protect belongings.
- Carry iBook by hand or by shoulder strap.
- Truly a 24 hour standby carrying case.
- Design allows room for necessities such as: power adapter & power cord.

**\$39**



### 6-Port Repeater [CG-1394HC]

- 4 ports (6-pins)+2 ports (4-pins).
- Multiple repeaters' connection for distance up to 236 ft.
- Wide range power voltage support, 8V-30V.
- IEEE-1394 compliant.
- High speed transfer rate up to 400 Mb/s.

**\$65**



www.centuryglobal.com

(Mon-Fri 8am-6pm PST)

TOLL FREE #: **1-877-608-1394**

Resellers inquiry are welcome.



# Add High Speed FireWire to your Mac, PC or Laptop

Includes QuickTime Pro Video Editing Software



## KeySpan FireWire Cards

- PCI: Add 3 FireWire ports to your Mac or PC (\$89)
- CardBus: Add FireWire to Your Laptop (\$99)
- Works with Sony, Canon and other DV camcorders
- Includes QuickTime Pro & FireWire Cable



## USB Twin Serial Adapter

- Add 2 Mac serial ports to your USB Mac (\$79)
- Use with tablets, modems, cameras & many printers
- Two ports for the price of the single port solutions!



## USB PDA Adapter

Connect Palm organizers to your USB Mac or Win98 PC (\$39)

## Digital Media Remote

USB remote control for PowerPoint, DVD, CD, & MP3 software players (\$79)

## USB-Parallel Printer Adapter (\$39)

## USB 4-Port Hub (\$39)

## 2-Port PCI USB Card (\$39)

www.keyspan.com  
(510) 222-0131



**KEYSPAN**



# Get FireWire!

## Accelerate your peripheral.

**RATOC**  
RATOC Systems, International

### FireWire to Ultra-SCSI Converter **FireREX1**

- Cute and Cool! Just fit to High-density 50P SCSI-II port.
- Support Ultra-SCSI(up to 20MB/Sec.)
- Two 400Mbps FireWire ports. Enable Daisy Chain.
- Change SCSI device to FireWire device instantly. Compatible SCSI device.
- HDD, CD-R/W, and Removable storage device
- ORB, Jaz, MO,



## FireWire Host Adapter series for PowerMac

### FireWire CardBus PC card for PowerBookG3.

#### **CBFW2**

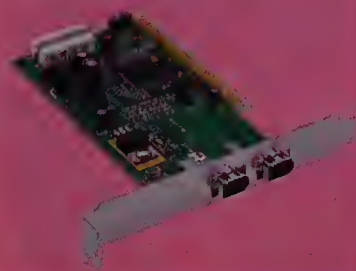
- Support two 400Mbps FireWire port.
- High speed read/write(9.8/12MB/Sec.) with PowerBookG3/400/VST/Lacie FireWire HDD.
- Final Cut Pro official Qualified.
- Fully compatible with iMovie.
- Comes with two port dangle, DV to FireWire Cable, Drivers and EditDV 1.6.1 45days trial version.



### FireWire PCI board series for Beige G3.

#### **New! PCIFW2**

- Support two 400Mbps FireWire Port.
- Full Calss\_1 Cable power(15W) x2 available. Best for VST/Lacie Partable FireWire HDD.
- Low Price, High-quality guaranteed.
- Comes with DV to FireWire Cable.
- Fully compatible Apple iMovie and FireWire 2.4 or later.



### FireWire/USB Combo PCI board.

#### **PCIFU1P**

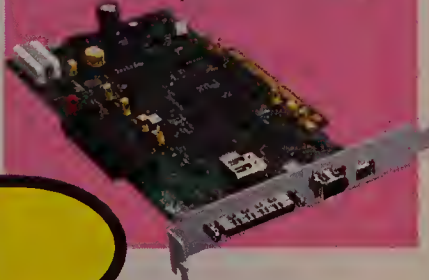
- Support three 400Mbps FireWire ports and two USB1.1 full speed ports.
- Full Calss\_1 Cable power(15W) x3 available. Best for VST/Lacie Partable FireWire HDD.
- Fully compatible with Apple USB Adapter Card Support 1.4.1 or later.
- Comes with DV to FireWire cable, Driver and EditDV 1.6.1 45days trial version.



### FireWire/Ultra-Wide SCSI Combo PCI board.

#### **PCIFS3P**

- Support three 400Mbps FireWire ports and two 68P Ultra-Wide SCSI ports.
- Full Calss\_1 Cable power(15W)x3 available. Best for VST/Lacie Partable FireWire HDD at same time.
- Full turnkey one box solution, all necessary four cables and software included.
- SoftRAID 2.2.2 SCSI HDD RAID software included.
- HDD, Removable Disk and SCSI utility software included.
- EditDV 1.6.1 45days trial version included.



**Adobe Premiere5.1 full version bundle model available.**  
CBFW2PF, PCIFW2PF, PCIFU1PF, PCIFS3PF



**Call to**

•J&R [www.jandr.com](http://www.jandr.com) 800-221-8180 •Electronic Mail Box [www.videoguys.com](http://www.videoguys.com) 800-323-2325 •MCE PowerBook [www.powerbook1.com](http://www.powerbook1.com) 800-5000-MAC  
•ClubMac [www.clubmac.com](http://www.clubmac.com) 800-260-8549 •FireWireShop [www.firewireshop.com](http://www.firewireshop.com) 408-955-9229 •EMJ(Canada) [www.emj.ca](http://www.emj.ca) 800-265-7212 •Ingram Micro

**RATOC**  
Systems, International

1933 O'Toole Avenue Suite A109 San Jose, CA 95131 Phone : 408-955-9400 FAX : 408-955-9402  
URL <http://www.ratocsystems.com> E-mail [int-support@rexpccard.co.jp](mailto:int-support@rexpccard.co.jp)

URL <http://www.ratocsystems.com>  
e-mail [int-support@rexpccard.co.jp](mailto:int-support@rexpccard.co.jp)



# Dr. Bott

**Resellers,  
Imagine a Mac friendly  
distributor focused  
on your needs!**

- Pricing competitive with major distribution.
- No hidden handling fees or surcharges.
- No minimum orders.
- Low dealer demo pricing.
- Exclusive products like the iBookBag and MoniSwitch KVM.
- A sales staff that use the products they sell.



Farallon



[www.drbot.com](http://www.drbot.com) • 877-611-2688

Circle 173 on card or go to [www.mocworld.com/getinfo](http://www.mocworld.com/getinfo)

Precision Music  
Scanning and  
Scoring

**SMARTSCORE**

NOW  
SmartScore  
PIANO EDITION  
Just  
\$149<sup>00</sup>

MUSITEK  
Music Imaging Technologies®  
800-676-8055

[www.musitek.com](http://www.musitek.com)

153 on card or [www.mocworld.com/getinfo](http://www.mocworld.com/getinfo)

# MEMORY

**512 MB \$499**

Full Range Of G4s, iMacs 3500  
400, DV + 450/DV, SE 500

**256 MB \$269**

Full Range Of G4 & PM G3s,  
PowerBook G3 400 FW,  
500 FW iBook /SE

**128 MB \$119**

Full Range Of G4s and  
Power Mac G3s

**64 MB \$139**

POWER MAC 6400 - 9600

**1-800-839-5762**

For Latest Prices visit:  
[www.memoryworld.net](http://www.memoryworld.net)

Mention this ad for FREE SHIPPING

# What you DO with it is YOUR business.

**PYRO 1394**

**WebCam**

**the fastest &  
clearest images  
on the Net**



FireWire®



FireWire technology offers the best image quality over the Internet. Unlike USB cameras that compress the video stream, PYRO Web Cam has ZERO compression & utilizes a high-quality Sony® CCD so you can make the best possible impression. Also includes: ArcSoft Video Impression; Photo Fantasy 2000 and Video Link Pro .



Available at: Fry's, MAC Connection, Microcenter,  
Tiger Direct, Comp USA, Cicuit City, ...and more!

800.888.5244 • 562.926.1928  
[www.adstech.com](http://www.adstech.com)

**PYRO BasicDV - PYRO 1394DV For Notebooks - PYRO Web Cam**

Circle 151 on card or go to [www.mocworld.com/getinfo](http://www.mocworld.com/getinfo)





FireWire • USB • SCSI  
CDR/W's & Hard Drives  
[www.ezq.com](http://www.ezq.com)



Lind Electronics, Inc. 6414 Cambridge Street Minneapolis, MN 55426



Auto Air Power Adapters for  
Apple G3 PowerBooks™ and iBooks™



Order Online at:  
[www.LindElectronics.com](http://www.LindElectronics.com)  
or Call to Order at  
#800-897-8994

## Out of DV storage? Break out of the box!



### CONVERT YOUR DRIVE TO AN EXTERNAL FIREWIRE® DRIVE FOR LESS

Digital video production is the hottest thing to hit the personal computer, but storing data-intensive DV files can burn up hard drive space. With the **PYRO FireWire®/1394 Drive kit**, convert any IDE hard drive, CD-ROM or CD-RW to an external FireWire® drive simply by installing it into the enclosure. Plug & Play, Hot Swappable, stackable, & chainable FireWire® storage at a price that won't incinerate your wallet. **PYRO 1394 ORB Drive** includes a pre-installed ORB 2.2 GB Drive for the fastest removable storage ever!



Available at: Fry's, J&R, MAC Connection, Microcenter, CDW  
...and more!

800.888.5244 • 562.926.1928  
[www.adstech.com](http://www.adstech.com)



ADESSO

Input Specialists

## KEYBOARDS

----- and a whole lot more!!



- USB Ergo Keyboard
- USB Mini Keypad
- USB Scrolling Mouse
- USB Optical Mouse

NU-FORM  
is FLAT

TR-FORM™

is CONTOURED

USB

Visit us at [www.adessoinc.com](http://www.adessoinc.com)Circle 166 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)Can  
uConnect™UNIVERSAL  
Mac & PC  
connectorsto your  
iMac?uConnect  
extremeALL IN ONE  
3 uConnects + extra usb port

(877) 381-1400

[www.momentumus.com](http://www.momentumus.com)RACKMOUNT  
YOUR G4

(or your G3)

[mwd@marathoncomputer.com](mailto:mwd@marathoncomputer.com)[www.marathoncomputer.com](http://www.marathoncomputer.com)

800 • 832 • 6326

Circle 164 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)





This EPS image was  
printed on a color inkjet  
**WITHOUT** StyleScript.

This EPS image was  
printed on a color inkjet  
**WITH** StyleScript.

Give your printer a PostScript upgrade,  
and see the improvement for yourself

## StyleScript

Adobe PostScript 3 RIP

Never worry about jagged edges spoiling your graphics again.  
StyleScript turns your inkjet into a genuine Adobe PostScript 3 printer.

Documents created in applications like Adobe Illustrator®, PageMaker®,  
InDesign® and QuarkXpress® will look more stunning than ever.  
StyleScript prints PostScript documents and fonts crisply and cleanly  
at any size and orientation, at your printer's maximum resolution.

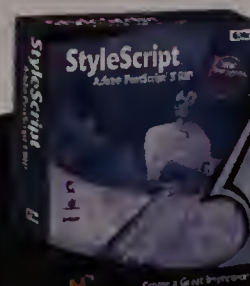
For just \$99, StyleScript 5.0 delivers:

- Accurate and fast PostScript printing
- Reliable color matching
- A convenient and simple interface
- Support for USB, serial and Ethernet printing

**NEW!**  
StyleScript 5.0  
supports EPSON  
inkjet printers

**EPSON**

Epson Stylus Color  
740, 740i, 760, 860, 900,  
900N, 900G, 1160



STRYDENT SOFTWARE,  
formerly Infowave's Imaging Division

Order now at 1.888.842.5312 or  
on-line at [www.stylescript.com](http://www.stylescript.com)

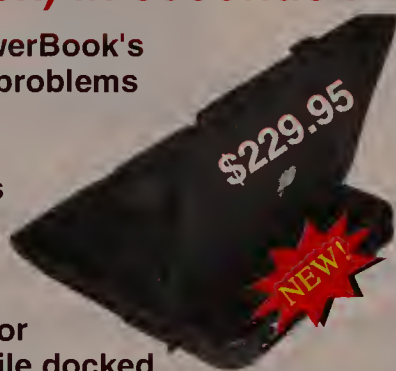


Circle 33 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## BookEndz® Docking Stations for PowerBook's

Convert your PowerBook to a desk-  
top system (or back) in seconds!

- Models for 2000 and 1999 PowerBook's
- No more file synchronization problems
- Attach your peripherals once
- Dock or undock in 2 seconds
- No more damaged connectors
- Supports all rear ports
- No assembly required
- Eliminates cable confusion
- Lighted power/docked indicator
- Insert or remove PC cards while docked
- Adds only 3" to rear of PB while docked
- Eliminates the need for a separate desktop computer
- Will not interfere w/ IR port, security slot, or media bays



[www.pilot-tech.com](http://www.pilot-tech.com)

Pilot Technologies, Inc., Minneapolis MN  
Tel: (952) 828-6002 Fax: (952) 828-6806  
Email: [info@pilot-tech.com](mailto:info@pilot-tech.com)  
We welcome Reseller & Distributor inquiries

BookEndz is a registered trademark of Pilot Technologies, Inc.  
All other trademarks are the property of their respective owners.

Circle 167 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)





PUT AN ECLIPSE AT THE  
TOP OF YOUR WISH LIST.

ECLIPSE FROM BELLSTOR, the first simple high-performance storage solution. Featuring the high speed FireWire interface, the BellStor Eclipse is available in Hard Disk, Tape and CD-RW models.

- Data transfer rates up to 400 Mbps
- Simple Plug & Play installation
- Hot-Pluggable
- Auto-configuring
- No device ID's or termination

"...if you're craving a FireWire CD-RW drive, put this one at the top of your list."

BUZ ZOLLER  
*Mac Addict, July 2000*

BELLSTOR  
SIMPLIFYING STORAGE SOLUTIONS



[www.bellstor.com](http://www.bellstor.com) • (800) 800-1513

# Omni Studio

The best rapid application development tool on the Mac

With Omni Studio, a developer can achieve the fastest time to market for new applications. Studio is a 4GL rapid applications development environment



where sophisticated business solutions can be deployed in a fraction of the time it would take with other tools.

Studio built applications can be deployed across Mac OS, Windows and Linux or across the Internet.

The cost is only \$149.00 for the complete developer kit. Call us today at 1-800-346-6647 or visit us at [www.omnis.net](http://www.omnis.net) to download a free demo version of Omni Studio.

**omnis**.studio  
ahead of the curve

[www.omnis.net](http://www.omnis.net)



## POINT OF SALE • INVENTORY CONTROL

Software & Hardware for:

- Retail/Wholesale
- Mail Order
- Internet Commerce
- Rentals/Service/Repair
- Kiosk Development
- FileMaker/4D Tools
- Credit Card Auth. SW
- Full USB Support

Fully Integrated Accounting  
Multi-Site • Cross Platform • Receipt  
Printers • Barcode Readers/Printers • Cash  
Drawers • Mag Stripe • Ribbons • Paper •  
Labels • Developer Integration Support  
New Visor Laser Scanners  
Touch Screens



New Free CD Rom  
v.4.0 Now Shipping

[www.posdirect.com](http://www.posdirect.com)

(800) 622-7670 • [sales@posdirect.com](mailto:sales@posdirect.com)

(618) 985-8237 vox • (618) 985-3014 fax

Visor™ Handheld  
Laser Scanning Kits  
Now Shipping



Circle 165 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## Call Us Toll Free 800-345-4220

Broadest Selection of Bar Code Products in the Industry

- Technically superior products direct from the manufacturer
- Toll free technical and pre-sale support
- 24-hour turnaround on repairs
- Free UPS Blue shipping in U.S.
- 30-day money back guarantee

- Portable & non-portable Batch Readers
- Cordless interactive R/F Terminals
- Wand, Laser, CCD, Magstripe or Slot Badge
- PostScript bar code fonts

or visit our website at

[www.BarCodeHQ.com](http://www.BarCodeHQ.com)

for a complete catalog and bar code primer

USB

Call For  
Free Catalog  
& Bar Code  
Primer

Worthington Data Solutions  
is now

WORTH  
data

Phone: 831-458-9938 • Fax: 831-458-9964

## one touch sit to stand!



**biomorph™**  
interactive desk

[biomorphdesk.com](http://biomorphdesk.com)  
catalog 888 302-DESK

Circle 161 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

Want to Print  
Bar Code  
Labels?

**maclabel.com**  
LABEL PRINTERS  
USB  
Ethernet  
Appletalk  
HP PCL5, LIII  
IntelliTech  
INTERNATIONAL  
PH: 800-694-3034  
iii@intellibar.com

## ILLUSTRATIONS ON CD ROM

Squiggles \$299<sup>95</sup>



[WWW.SQUIGGLIES.COM](http://WWW.SQUIGGLIES.COM)

## FOR SALE WILL BUILD TO SUIT\*



Choose  
Plastic Table Top  
or upgrade to glass



iStand™  
Computer  
Workstation

is designed and made in Italy by a team of superior craftsmen. The frame has an electrostatic powder-coated, textured grey finish and computer arc-welded joints for strength and durability. It is available in all five iMac® Fruit Flavors, G3® Blueberry, plus Original Bondi Blue, Graphite, and Neutral.

\*Modular workstation design and available optional add-on components let you customize your iStand to suit your needs.

\*\*iMac and G3 are registered trademarks of Apple Computer.

1-800-431-6699  
Contact your i Representative Today

[www.iStand.net](http://www.iStand.net)  
[iStand@musicindustries.net](mailto:iStand@musicindustries.net)

Circle 154 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## TypeStyler™3

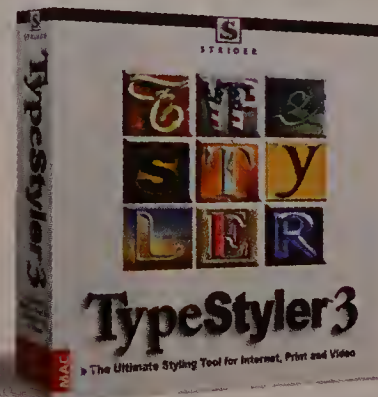
The ultimate styling tool for Internet, Print and Video.

You just won't believe your eyes!  
The new TypeStyler is a powerhouse of spectacular special effects, yet retains the friendly ease of use that made the original TypeStyler so popular.

TypeStyler is the graphic designer's backroom secret weapon. Create dazzling web graphics, headlines, ads, signs, posters, videos titles and more in minutes. Instead of hours!

TypeStyler is a complete stand-alone design, layout, and effects program yet also works seamlessly with Photoshop, Illustrator, GoLive, XPress, PageMaker, InDesign, FreeHand, FireWorks, and more.

- Includes style and shape libraries, design templates & 110 of the world's coolest fonts.
- Always editable -- text, shape & style -- makes changes & design reuse a snap.
- Unlimited text shaping -- circles, arcs, distortions -- any shape you can imagine.
- Integrated path editing tools to create virtually any logo or custom design.
- Create buttons, banners, image maps and JavaScript rollovers for the Web.
- Export as Photoshop layers, Illustrator, GIF, PICT with alpha, EPS, & more.



To order, call 906-863-7798 or visit us at: [www.typestyler.com](http://www.typestyler.com)



art born, music visualized -live-  
as if from the data stream of your imagination...

## Give the Gift of Creativity Unleashed Onadime Composer

Your own voice  
Your own music  
projected into  
a new dimension  
of existence

Create your own  
music visualizations  
and interactive art  
with the new  
Onadime COMPOSER

Onadime  
POB 99151, Seattle WA 98199 USA

Download the  
**Free**  
OnadimePlayer  
and sample  
Compositions

NOT  
ANIMATION  
Live  
creation  
from sound

1. "SEE THE MUSIC"  
Onadime CD-ROM  
2. PlayerPlus for  
added features  
3. PlayerPro for  
Performances

Select from  
hundreds  
of Onadime  
Compositions  
on the web



Music Visuals & Creative Software for the Real-Time Digital Arts  
[www.onadime.com](http://www.onadime.com)

**More accurate than a  
\$300,000 proofing system!**

PowerRIP 2000 makes

**Your  
Proof**

=

**Your  
Press**

Proof and Print PostScript

- See your color traps with the ability to combine separations
- Recognizes named spot colors in print jobs, such as PANTONE, and selects the best CMYK match for your printer
- Includes new and improved ICC profiles for Epson, HP, and iProof's PressProof papers
- Includes SWOP, FOGRA profiles
- Accepts color matching ICCs
- Network printing included
- Drives Epson and HP ink jet printers

Add the **PowerPDF 2000** option to  
generate Web or print-ready PDFs from the same  
PostScript or EPS files used for PowerRIP 2000

Available at MacWarehouse or directly through iProof Systems  
Tel: 321-254-4401 • Fax 321-254-6899 • [www.iproofsystems.com](http://www.iproofsystems.com)

## Digital Solutions!



- INSTANT Online Quotes
- OVERNIGHT Services
- Submit Jobs Online
- Online Tech Help
- A Price You'll Like!

Send PC/Mac files by FTP or Priority Air Express to Imagers and for most output services, your finished work is in your hands the very next morning.

- Digital Short-Run Printing
- High-Res Film Scanning
- Digital Posters/Banners
- Fuji Digital Photo Prints
- Digital Color Lasers
- Slides & Overheads
- New Media Services

QuickMaster DI  
**HEIDELBERG**  
Direct to Offset From Your Files!

New! **indigo**  
Ultrastream  
Print ONLY what you need!

New! **XEROX**  
DocuColor 2060  
New Capabilities & Paper Stocks!

Kodak  
**PHOTO CD**  
Hi-Res Scanning

DisplayMaker

Fuji



Hours...  
Monday to Friday  
8:00am to 8:00pm  
East Coast Time

We guarantee our work!  
1575 Northside Dr. Ste. 490 Atlanta 30318

[www.imagers.com](http://www.imagers.com)

800.398.5816/404.351.5800

Circle 155 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



## WHOLESALE WATERLESS COLOR PRINTING FROM YOUR COMPUTER FILES

**1000 FULL COLOR BUSINESS CARDS FOR \$100** Sug. retail price \$179  
**1000 FULL COLOR POSTCARDS FOR \$149** Sug. retail price \$249

Printed waterless at 300 line screen from your computer files on Super Premium 10pt. Kromekote with our FREE scratch-resistant aqueous coating.



Now offering up to 40 inch  
**WATERLESS**  
 300 Line Screen  
 Printing!

Rest easy ...

Your Trade Association has the answers to your problems!

- BUSINESS CARDS
- POSTCARDS
- CD INSERTS
- CD TRAY LINERS
- BROCHURES
- BOOKLETS
- NEWSLETTERS
- POSTERS & MORE

## FEATURING 300 LINE SCREEN WATERLESS OFFSET PRINTING

Rates for Brochures, Booklets and Flat Sheets are also available.

**4-COLOR WATERLESS SPECIAL**  
**1,000 24" x 36" POSTERS**  
 24" x 36" 4-Color Posters printed 4/0 from your computer files at 300 line screen on 100 lb. Gloss Text. Price includes full bleed and FREE aqueous coating.  
**\$1,699**  
 SUGGESTED RETAIL \$2,294  
 Get 2,000 for only \$1,999



GRAPHIC ARTS AVAILABLE



4413 82nd Street • Lubbock, TX 79424 • FAX: 806.798.8190

QUARK  
 Authorized Service Bureau

Factory Authorized  
 COREL  
 Service Bureau

Se Habla Español

Email your requests for printing quotes to request@copycraft.com

**1.800.794.5594**

CALL TODAY FOR A **FREE** COPY OF OUR **NEW** 32-PAGE FULL COLOR CATALOG

Visit [www.copycraft.com](http://www.copycraft.com) for more Specials...in English or Spanish!

Circle 223 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## BIG POSTERS AT HUGE DISCOUNTS

FROM YOUR COMPUTER FILES

HIGHEST QUALITY PRINTS AT THE BEST VALUE AROUND • STATE OF THE ART EQUIPMENT • UP TO 600%

<b>24" x 36"</b> Full color print on 7 mil high or low gloss paper <b>\$25</b> NO MINIMUM VOLUME DISCOUNTS	<b>36" x 48"</b> Full color print on 7 mil high or low gloss paper <b>\$50</b> NO MINIMUM VOLUME DISCOUNTS	<b>48" x 72"</b> Full color print on 7 mil high or low gloss paper <b>\$125</b> NO MINIMUM VOLUME DISCOUNTS
---	---	--

FOR MORE INFO & PRICING VISIT OUR WEBSITE

[www.BIGPOSTERS.com](http://www.BIGPOSTERS.com)

CREATIVE JUICES PRINTING & GRAPHICS INC.

(In New York) Tel: 516-820-4533 Fax: 516-820-4534 • 14 Westcott Rd., Levittown, NY 11756

**1-888-880-HUGE**

177 on card or [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## Digital Imaging

Slides & Negatives \$3.75  
 4x5 Transparencies/Negs \$30  
 Large Posters & Displays \$45  
 Scanning: Hi & Lo Res  
 Kodak Photo-CD Scans  
 Short Run Color Printing  
 Show & Tell 39 W 38th St., NY, NY 10018

[www.show-tell.net](http://www.show-tell.net)

212 840-2912 212-840-7953 (fax)  
 showtel@ibm.net • shotel@aol.com

219 on card or [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## DELUXE COLOR PRINTING!

Our ultra thick, deluxe high gloss cards stand out from the rest!

**FREE SAMPLES**  
**Call Now!**



- Super thick card • Ready in 5-7 days!
- Glossy UV coating • NO Film Charge!

**1-800-957-5787**

[www.postcardpress.com](http://www.postcardpress.com)  
 Preferred by over 5,000 professionals!

## Printing Made Easy

Only From Your Photoshop™ Files

### Full Color UV High Gloss Flyer Cards

- ONLY PHOTOSHOP™ FILES, TIFF, EPS, JPEG AND PSD FILES ONLY
- EACH SIDE IS ROUNDED UP TO THE WHOLE INCH, 12 INCH MINIMUM
- SET MODE TO CMYK AND IMAGE AT 300 DPI AT PRINT SIZE
- VISA, MC, AMEX OR MONEY ORDERS ACCEPTED
- PRINT ANY CUSTOM SIZE FROM 1" X 1" TO 13" X 17"
- FULL COLOR UV COATED BOTH SIDES ON 80# COVER

	5000	10000
	\$8 per sq. in.	\$12.50 per sq. in.
3" x 4"	\$96	\$150
4" x 5"	\$160	\$250
4" x 6"	\$192	\$300

NOT INCLUDING \$20 SET UP FEE AND SHIPPING

Print Here >> **1-800-511-2009**

e-mail: [orders@psprint.com](mailto:orders@psprint.com) fax: (510) 444-2909

or on the web at: [www.psprint.com](http://www.psprint.com)

2861 MANDELA PARKWAY OAKLAND CA 94608

Circle 158 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

STANDARD  
**72**  
 HOUR  
 SERVICE

RUSH SERVICE  
**24**  
 HOUR  
 AVAILABLE

WILL SHIP  
**ANY**  
 WHERE  
 WORLD WIDE



# Go Ahead. Host Your Web Site With Another Company. It's Your Money.

## Making Money On The Web Begins By Not Wasting Money On The Web.

Unless you've got money to burn, Interland is the way to go. Our complete solutions include everything from shared hosting to dedicated and high-availability hosting to Web site design, all at an unbeatable value.

That's why we're rated #1 by *PC Magazine* and *Windows NT Magazine*. So whether you're already on the Web or ready to get started, call us to learn how we can make the Web work for you today, and grow with you well into the future.

### The Interland Standard

- Unconditional 30-day, money-back guarantee
- E-mail accounts for your Web site
- 150 MB starting at \$19.95
- 24/7 toll-free support
- 99.9% uptime

Call Today Toll Free  
**877.472.7189**  
[www.interland.com](http://www.interland.com)

NASDAQ: ILND

**@interland**  
We make the Web work for you.™



December 1, 1999 September, 1999

© Copyright 2000 Interland, Inc. All rights reserved.



## When Things Get Rough, a Good Host Thinks of Everything.



### Trust NetNation to keep your web presence afloat.

No matter what stage your business is at, we can help.

From the first step of registering your own dot.com to hosting your web site on the net, we provide you with the essential technical services to help you succeed in today's online marketplace.

At NetNation, we not only provide you with industry knowledge and technical expertise, our customer service representatives are on hand 24 hours a day, 365 days a year. We offer an extensive product line and we are with you every step of the way. That's why customers in over 130 countries trust us to power their web sites.

Get your business online! Call us toll-free at 1.888.277.0000 or visit us at [www.netnation.com/mw](http://www.netnation.com/mw)



San Diego | London | Vancouver

[www.netnation.com/mw](http://www.netnation.com/mw)

Web Hosting | ASP | E-commerce | Domain Name Registration  
Nasdaq: NNCI

© 1997 NetNation Communications Inc. All rights reserved. Offers subject to change without notice.  
NetNation is a registered trademark of NetNation Communications Inc.  
All other trademarks are property of their respective owners.

## DATA RECOVERY: 800-440-1904

### 7 good reasons to choose DriveSavers:



1. Fastest, most successful data recovery service available.
2. Recommended and certified by all drive companies to open the drive and maintain the warranty.
3. Advanced, proprietary recovery techniques.
4. 24-hour, onsite, and weekend service available.
5. Retrieve recovered data instantly with DATAEXPRESS™ over secured Internet lines.
6. Featured in Mac-World, Mac Addict, MacWeek, Popular Mechanics; also by CNN, BBC, Forbes, and many others.
7. Federal and State Contracts.



Since 1985  
[www.drivesavers.com](http://www.drivesavers.com)

"We Can Save It!"

[www.drivesavers.com](http://www.drivesavers.com)

©2000 DRIVESAVERS, INC. 400 BEL MARIN KEYS BLVD., NOVATO, CA 94949 INTL: 415-382-2000 FAX: 415-883-0780

Circle 159 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



## DATA RECOVERY

For **MAC** - (Hard Drives, Opticals, Removables)

By Nick Majors' DATA RECOVERY LABS

"The Best Data Recovery Service available  
- Anywhere - at any Price!"

Dedicated in-house MAC specialists are available to work on your emergency data recovery. Complete facility with clean rooms and full MAC capabilities.

Free evaluations. All recoveries are 100% satisfaction guaranteed. Complicated / top priority projects are our specialty.

[Datarec.com](http://Datarec.com)  
DATA RECOVERY LABS

USA • Canada • Japan

1-800-563-1167  
[www.datarec.com](http://www.datarec.com)

**data recovery**  
[www.mcrecovery.com](http://www.mcrecovery.com)

When you absolutely, positively  
have to get your data back...

- 24hr. Emergency Data Recovery
- Worldwide Services

**MICROCOM**  
20802 Plummer St. Chatsworth, CA 91311 • 818 718-1200  
**800 469-2549**





Data Recovery  
Accessories  
Training  
Education/Entertainment

# SERVICES/DIRECT : showcase

## PROFESSIONAL DATA RECOVERY

# Miracles. (performed daily)

While we do lay hands on each and every disk that arrives, it actually doesn't take a miracle to get your data back. ..just know-how and good old-fashioned experience. We have lots of it at Total Recall, just ask one of the thousands of customers we've served in the last 14 years. Lose some data? Call us for your miracle today.

HARD DRIVES • REMOVABLE DISKS  
MOST OPERATING SYSTEMS

**800.743.0594**

**TOTAL RECALL**  
THE DATA RECOVERY COMPANY™

2462 Waynoka Road • Colorado Springs, CO 80915  
(719) 380-1616 • Fax (719) 380-7022

For online quotes & forms visit: [www.totalrecall.com](http://www.totalrecall.com)

Circle 199 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## Data Recovery in hours.

- Over 10 years of experience with clients worldwide including Apple, NASA, HP, and FedEx.
- We've recovered more than half-a-million megabytes of Mac Data alone.
- You only pay when there's a recovery.
- Express One-Day Service is available.
- Call 24 hours a day.

415-495-5556 • FAX 415-495-5553 • RESTRICTIONS MAY APPLY  
381 Clementina Street • San Francisco, California 94103



Working at the speed of business.

**800-341-DATA**

Circle 217 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## CD-ROM PRODUCTION

**1000 Retail-Ready Stamped CDs**  
Includes two color discs, four color glossy insert & tray cards, jewel case, and poly wrap. Complete turnkey — just send a CD-R and art files! Call for details.

**100 Duplicated CD-Rs in 24 Hours**  
Available with B/W or color labels in your choice of stock packaging. Or add custom printed packaging (sleeves or inserts & tray cards) in only 2 days more!



**SILICON VALLEY  
CD** formerly Catalogic

Your CD-ROM Production Source™  
<http://www.svcd.net>

990 Richard Ave Ste 103 • Santa Clara, CA 95050  
Telephone: 408-486-0800 Fax: 408-486-0809

We Also Offer:

- CD-R silk-screening service
- CD-R dupers, blank CD-Rs and supplies through our online store at [www.svcd.net](http://www.svcd.net)

Call today: (800) 255-4020  
or visit us online.

Great Gifts for Mac Fanatics!

**Apple  
Collectibles!!!**



**REDLIGHTRUNNER.COM**

## NEED TRAINING?

Computer Training on  
CD-ROM & Video at  
[www.macacademy.com](http://www.macacademy.com)

**MacAcademy**

## STUDENTS!

Save up to **75% OFF**  
popular software!



Adobe  
Microsoft  
Discreet  
Microsoft  
MetaCreations  
Macromedia  
AliasWavefront  
Softimage  
Autodesk  
Extensis  
Alien Skin  
Digimotion  
Symantec  
Corel  
ADAM  
Wacom  
Many  
More!!

THOUSANDS OF TITLES AVAILABLE!  
**FREE CATALOG!**

Serving students & schools since 1990

**1-800-874-9001**

**JourneyEd**

Journey Education Marketing

[www.JourneyEd.com](http://www.JourneyEd.com)

## ACADEMIC DISCOUNTS on CREATIVE DIGITAL TOOLS

[www.creationengine.com](http://www.creationengine.com)  
**800.431.8711**

explore our web site!

product info  
academic prices  
online ordering  
reviews  
tutorials  
art gallery  
quote builder  
site licensing prices



Students, faculty, and schools can save up to 70% on the hottest creative software from over ninety companies including Adobe, Macromedia, Discreet, Newtek, and Hash.



[www.madaboutmac.com](http://www.madaboutmac.com)  
Macintosh resources for teachers and students!

**CE CREATION ENGINE, LLC**

174 on card or [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



## Savings for Students & Teachers

**FREE CATALOG!**  
Save on over 5,000 Titles!!

Up to **80% Off**

We will beat any advertised price!!

Coda Finale 2001.....	\$249
CodeWarrior Pro R5.....	\$119
Dream/Fireworks 3 Studio...	\$149
Dreamweaver 3.0.....	\$99
ElectricImage 3D 2.9.....	\$739
Freehand 9 Flash 5 Studio...	\$149
LightWave 3D 6.0.....	\$899
MacLinkPlus 11 Deluxe.....	\$75
Mask Pro 2.0.....	\$99
Mathematica 4.0.....	\$139
Media Cleaner Pro 4.0.....	\$319
PhotoFrame 2.0.....	\$109
PhotoGraphic Edges 10,000.	\$139
Stuffit Deluxe 5.5.....	\$55
TechTool Pro 3.0.....	\$85
Vectorworks 8.5.....	\$369

**(800)699-1836**

Visit our WebSite for \$10 Off online orders.

Software Showcase Inc.  
1775 Rt 34 South D#12  
Farmingdale, NJ 07727  
Phone # (732) 556-0400  
Fax# (732) 556-0408  
info@softwareshowcase.com

Mon-Fri 9-7 Est-Sat 10-3

**www.softwareshowcase.com**

Circle 168 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## ACADEMIC DISCOUNTS

Great Savings for...  
Students, Teachers  
and Schools!



Your Adobe back to school publishing tools are here:

Acrobat • After Effects • Framemaker  
Golive • Illustrator • Indesign  
Pagemaker • Photoshop • Premier  
Type Manager • Web Bundles

### Macromedia Web Design Studio

Dreamweaver 3, Fireworks 3,  
Flash 5, & Freehand 9.

**\$198**

### New: Office 2001 for Mac

The latest from Microsoft is  
now available at an incredible price.

**CALL**



**Monthly Special!**  
**Adobe Bundles**  
Save hundreds on the  
Web, Publishing, and  
Design Collections

Call or visit Online for pricing!

Adobe	<b>Call!</b>	Filemaker Pro 5	\$148	Photoshop 6	<b>NEW Call!</b>
Coda Finale 2001	\$199	Fireworks 3	\$98	Painter 6	\$199
CodeWarrior Pro 6	\$109	Flash 5	<b>NEW \$98</b>	Sibelius	\$229
DenebaCAD	\$249	Flash + Freehand	<b>\$144</b>	TechTool Pro 3	\$79
Director 8	\$329	FormZ 3.6	\$825	Vectorworks 8.5	\$329
Dreamweaver 3	\$98	Freehand 9	\$98	Iomega	<b>Call!</b>
Dreamweaver 3 +		Lightwave 6	\$789	Wacom 6x8	\$284
Fireworks 3	\$144	Mathematica 4	\$129		(PC titles available!)
Electric Image	\$639	Norton Utilities	\$59		

Visit [AcademicSuperstore.com](http://AcademicSuperstore.com) for...  
on-line ordering & thousands of products!

CALL FOR YOUR FREE CATALOG

**1-800-333-8571**

Fax PO's and ID's to 512-450-0263

**ACADEMIC  
SUPERSTORE**

**www.AcademicSuperstore.com**

Circle 180 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## MacMart

Knowledgeable & Friendly  
Staff Ready To Assist You

Visit Our Web Site & Enter To Win  
**A FREE 128 Meg Module**

**Guaranteed Low Prices**

If We Don't Have It - Chances Are Nobody Does

### VIDEO / DISPLAYS

Apple Studio Display 17" (Graph)	\$299
Apple 15" Flat Panel Display	\$945
Apple 22" Flat Panel Display	\$289
Princeton 19" 22dp 1600x1200 85HZ	\$335
NEC 21" 25dp 1600x1200 76HZ	\$675
Formac ProTV TV Tuner & Video Capture Card	\$95
ATI Rage Orion 16 Meg 1600x1200 32 Bit	\$85
ATI Xclaim 3D 8 Meg PCI Perfect 2nd Card	\$299
3DFX 5500 Voodoo-5 32 Bit Super Fast	

### MEMORY

SDRAM PC100 - For G3, G4 Computers, Cube & iMac DV	
64M ... 128M ... 256M ... 512MB	\$49 ... \$99 ... \$229 ... \$459
SO-DIMMs - For G3 Powerbook, iBook & iMac G4	
64M ... 128M ... 256MB	\$59 ... \$119 ... \$249
72 PIN SIMMs - 32 MB ... 64 MB	\$89 ... \$99
168 PIN DIMMs - 32M ... 64M ... 128MB	\$69 ... \$179 ... \$199

**macmart.com**

Proud Member of the Better Business Bureau

Order Toll Free in the USA

**1-800-600-2708**

International & Dealers 818-904-1400

Sales@macmart.com or Fax Us 818-904-1410

### POWERMACS

G3/266 14.1" 64-4GB-CD-56K (R)	\$1575
G3/400 14.1" 64-6GB-DVD-56K	\$2389
G3/500 14.1" 128-12G-DVD-56K	\$3349

### PRINTERS / SCANNERS

Canon BJC-85 USB Portable Color	\$285
Epson Stylus 860 1400x720 DPI	\$139
Epson Stylus 1160 Up To 13x44" Paper	\$295
Epson Stylus 2000P Photo Repor Quality	\$799
Epson Stylus 3000 Up To 17x44" Paper	\$1199
HP DJ 970CXI Up To 2400x1200DPI	\$385
HP Laser 2100M Up To 2400x1200DPI	\$745
HP Laser 4050N 17 ppm w/Ethernet	\$1395
Tektronix Phaser 750N USB/Ethernet	\$2275
Epson Perfection 610 36bit 600x2400dpi	\$119
Epson 2000 Scans, Prints & Copies	\$145
Epson Perfection 1200 36bit 600x2400dpi	\$185
Microtek 4700 600x1200dpi 42bit	\$259
Nikon D660U w/35MM Film Adapter	\$139
Umax Astra 3450 w/Transparency Adapter	\$147
Umax Astra 4000U Includes Photoshop	\$239
Umax Powerlook III Professional Series	\$575

### DRIVES

Iomega Internal Zip Drives	\$65
Seagate 30 Gig Barracuda 7200 Rpm Int.	\$175
USB External 32x4x4 w/Toast	\$249
SCSI 24x8x4 External w/Toast	\$299
Firewire 12x10x32 External W/Toast	\$449

G4/400 64 MEG -10GB-DVD-56K	\$1229
G4/400 64 MEG -20GB-DVD-56K	\$1495
Cube/450 64M - 5GB DVD-56K	\$1725
Cube/500 128MB - 5GB DVD-56K	\$2175
G4/450 DP 128-20GB-DVD-56K	\$2399
G4/500 DP 256 MEG 27GB DVD	\$3349

### Pre-Owned MACS

7300/200 16 MB - 2 GB - CD	\$399
3400C/200 16 - 2 - CD -mdm -Floppy	\$725
9600/200 32 MB- 4 GIG - CD - VID	\$799
G3/300 64 MB - 6 GB - CD	\$875
G3/400 64 MB - 6 GB - CD - ZIP	\$949
G3/400 128 - 20 - DVD - ZIP - 56K	\$1199

### MAC PARTS

LogicBoard 7100/80 ... 7200/90	\$135 ... \$149
LogicBoard 8500 ... 9500	\$479 ... \$499
PowerSupply 7300 ... 72/75/7600s	\$159 ... \$110
PowerSupply 85/9500s ... G3s	\$199 ... \$225
Apple CD 2x ... 4x ... 8x	\$25 ... \$45 ... \$55
Apple SCSI HDs 800MB ... 2GB	\$59 ... \$89

### CARDS

Bootable SCSI Card 2x faster then Mac Original	\$45
PCI Firewire Card 3 Ports	\$69
SCSI / Serial Combo with 2 Serial Ports	\$97
G3 & G4 CPU UPGRADE CARDS	SAVE

\* Brand Names are Trademarked with their respective holders • Prices listed are c.o.d • Price & Availability subject to change • Returns Subject To Restocking Fee \*

Circle 159 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)





# 1-800-533-9005

We are open Mon-Fri, 8am-6pm PST

Fax Bids: (310) 475-7744 or email at [SALES@COMPU-AMERICA.COM](mailto:SALES@COMPU-AMERICA.COM)  
10435 Santa Monica Blvd., Los Angeles, CA 90025

**Check out our Web!**  
**WWW.COMPU-AMERICA.COM**

Government, University and  
Fortune 1000 P.O.'s are welcome!  
Business Leasing is Available!  
International Orders Please call  
tel: (310) 446-1771

**POWERMACS**Starting at  
**\$849**

G4/500D... 256/40G/DVD RAM/56K... 3399  
G4/450D... 128/30G/DVD/56K... 2399  
G4/400... 64/20G/DVD/56K... 1499  
G4/500MT... 256/27G/DVD/ZIP... 2299  
G4/450MT... 256/27G/DVD/ZIP... 1999  
G4/450MT... 128/20G/DVD/56K/ZIP... 1749  
G4/400MT... 128/20G/DVD/56K/ZIP... 1499  
G4/400MT... 64/10G/DVD/56K... 1279  
G4/400MT... 64/10G/CD/56K... 1149  
G4/350MT... 64/10G/DVD/56K... 1099  
G4/400MT... 128/12G/24XCD/ZIP... 1099  
G4/450MT... 128/9G/24XCD/SCSI... 1199  
G4/400MT... 64/6G/DVD... 949  
G4/350MT... 64/6G/DVD... 899  
G4/350MT... 64/6G/CD... 849  
9600/300... 64/4G/24XCD... 1199\*

**I-MACS**Starting at  
**\$629**

I-MAC G3/500 SP 128/30G/DVD/56K... 1469  
I-MAC G3/450 DV+ 64/20G/DVD/56K... 1279  
I-MAC G3/400 DV 64/10G/CD/56K... 979  
I-MAC G3/400 Graphite 128/13G/DVD/56K... 1049  
I-MAC G3/400 64/10G/DVD/56K... 849\*  
I-MAC G3/350 64/7G/CD/56K... 799  
I-MAC G3/333 32/6G/CD/56K... 649\*  
I-MAC G3/266 32/6G/CD/56K... 629\*  
I-MAC G3/233 32/4G/CD/56K... .CALL

All Flavors Are In Stock!

(Blueberry, Strawberry, Grape, Lime, Tangerine.)

Call for the CUBE & other new products.  
Visit Our New Site for the latest pricing.

**WORKGROUP  
SERVERS**

G4/400... 256/18G/DVD/SHARE... 2199  
G4/350... 128/20G/DVD/SHARE... 1499  
G4/450... 256/2-9G/24X/SHARE... 1699  
CALL FOR OTHER WORKGROUP SERVERS.

**G3 POWERBOOKS**Starting at  
**\$999**

G3/500 128/18G/DVD/14.1 TFT/56K... 3399  
G3/500 128/12G/DVD/14.1 TFT/56K... 3099  
G3/400 64/10G/DVD/14.1 TFT/56K... 2399  
G3/400 64/6G/DVD/14.1 TFT/56K... 2099  
G3/333 64/4G/24XCD/14.1 TFT/56K... 1799\*  
G3/300 64/8G/CD/14.1 TFT/56K... 1699  
G3/266 64/4G/CD/14.1 TFT/56K... 1499  
G3/233 32/2G/CD/12.1 TFT/56K... 1299  
G3/233 32/2G/CD/12.1 DSTN/56K... 999

Call for all other PowerBooks.

**I-BOOKS**Starting at  
**\$1149**

12.1 Active TFT  
Color Screen,  
20xCD,  
56K Modem

I-BOOK G3/300 64/6G Graphite... 1499  
I-BOOK G3/300 64/6G Blueberry... 1399  
I-BOOK G3/300 32/3.2G Blueberry... 1149  
I-BOOK G3/300 32/3.2G Tangerine... 1149

**ViewSonic®**Starting at  
**\$169**

Q53 15"... 169  
Q71/Q75 17"... 209/269  
Q95/E790/GS790 19"... 339/359/399  
Q115/G810/P815... 669/749/849  
VG150/VP150... 799/899  
VIEWPANEL VP181... 2599

**SONY**Starting at  
**\$189**

E100 15"/E210 17"... 189/329  
G200 17"/G400 19"/G500 21"... 329/349/1069  
E400 19"/E500 21"... 499/979  
F500R 21"... 1649

**SONY LCD Displays**

N50 15"... 1329  
M151/M151 BQ 15"... 899/899  
L181/L181A... 2499/2499

**SONY Digital Cameras**

Cybershot DSC-D770... 649  
MAVICA FD73/FD85... 399/599  
MAVICA FD95... 869  
MAVICA CD1000(WITH COR)... 1199

**EPSON®**Starting at  
**\$69**

STYLUS COLOR 600... 69\*  
STYLUS COLOR 740/740I... 99/99  
STYLUS COLOR 900/900G... 249/299  
STYLUS COLOR 900N... 279  
STYLUS COLOR 860/880... 149/159  
STYLUS COLOR 1160... 399  
STYLUS COLOR 3000\*/3000... 799\*/1099  
STYLUS COLOR 5000... 2329  
EXPRESSION/610U/636U... 199/199

**iomega**Starting at  
**\$69**

ZIP DRIVE 100 MB INT(G-3)... 99  
ZIP DRIVE 100 MB EXT (USB)... 119  
JAZ DRIVE 2 GIG EXT/INT... 249/299  
JAZ DRIVE 1 GIG EXT... 99  
ZIP 100MB Cartridge (10 PACK)... 85  
JAZ Cartridge 1 GIG/2 GIG... 69/79

**Panasonic**

Digital Camera



PVDC-2590  
Palm Cam

• 8MB Flash Card  
• Motion Recording  
• 1.8 Color LCD  
• 1280 x 960 Res. • Modem Included

Special  
**\$379**

MITSUBISHI  
DISPLAY PRODUCTS  
Innovation On Display.

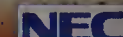
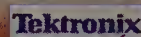
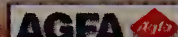
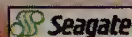
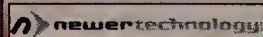
**DiamondPlus  
200**



22" Color Display  
1600x1200 Res.

Super Deal  
**\$799**

## YOUR #1 COMPUTER SUPERSTORE!



All prices are cash discounted. \* denotes a refurbished product. Not responsible for any typos. Apple, the Apple logo, Mac, PowerMac, PowerBook, iMac, iBook, Workgroup, G3, G4, & Cube are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. All other names & logos are trademarked by their respective owners. We are Not Apple Authorized.

**MAC-PRO** .com  
Systems & Software  
Buy • Sell • Upgrade • Repair • New • Used

We have It All  
In Stock!  
• iMac, G3, G4  
• PowerBooks

Everything Mac!

Any Ad is a Mac Pro Ad

**800-525-3888**  
sales@mac-pro.com Fax 408-369-1205

192 on card or [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

**CHEAP  
MACS!**

**LIQUIDATION  
STATION**

[www.liquidationstation.com](http://www.liquidationstation.com)  
**800-382-6246**

152 on card or [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

**USED MACS & POWERBOOKS  
WANTED!**

**WE BUY USED MACS!**

**TOP \$\$\$ PAID**

Any Quantity  
FedEx check delivery  
Fax a list for a quote  
310 966-4433  
11933 Wilshire Blvd.  
W. Los Angeles, CA 90025

**MAC Solutions**  
sales@macsolutions.com  
**(800) 80-WE-BUY**

[macofalltrades@macofalltrades.com](mailto:macofalltrades@macofalltrades.com)  
500 Bishop Street Suite E3 Alhambra Ca 90018  
Fox 404.355.5461  
**800.304.4639**

**used MACS**  
**LOOK**  
**A new way to**

[www.macofalltrades.com](http://www.macofalltrades.com)

**MAC OF ALL TRADES**

**Low Cost Internet Bundle!**  
**Only \$299!**

PowerMac 7200--G3 Upgradeable  
32 MB of Memory, 1.2 Gig Drive  
8xCDRom Drive, 15" Display  
56K Modem, Kbd & Mouse

**G3 All In One Systems**  
233 Mhz 32/4/CD: \$699  
333 Mhz 32/4/CD: \$799

Mac OS 8.1  
In Stock!

**Thousands Of Parts  
In Stock For Your Mac!**

Umax Astra  
2000u Scanner **\$49!**

3400c \$799!  
G3 PB \$1199!  
PM 8500's \$399!  
BW G3's \$899!  
iMac's \$599!  
Beige G3 \$799!

**888-447-3728**  
See All The Rest At:  
[MacResQ.com](http://MacResQ.com)

**MR Mac-Res-Q.**



# CALL THE MAC EXPERTS!

Your one-stop source for Apple® Macintosh® – over 30,000 items on sale at better than mail order prices!  
It's pretty simple: we know a lot about Mac® stuff, and we care about our customers.

## Software Specials

## Apple® 'Open Box'

Panzer General & Angel Devoid .....\$2.00  
US Atlas/Space Shuttle Bundle.....\$5.00  
Fun & Learning Game Bundle.....\$9.00  
Toast 4.0 OEM for Mac.....\$29.00  
Norton Utilities 4.0 OEM CD.....\$29.00  
Norton Antivirus 6.0 CD.....\$39.00  
Disney's Sketch Board.....\$45.00  
Mac OS® 8.1 Full Retail Package \$49.00  
MacroMedia Freehand 8 Upg.....\$49.00

Printer Cass. for LW 300&4/600 ..\$19.00  
Face-up Output Tray for 12/640 ..\$19.00  
LocalTalk Option for StyleWriter ..\$19.00  
Envel or Xtra Feeder for LW 8500 \$19.00  
AC Adapter for Powerbook G3 .....\$59.00  
Apple® Battery for Pwbk 3400/G3 ..\$59.00  
Apple® Battery for G3 Pwbks .....\$88.00  
4 Mb Upgrade for LW 4/600 .....\$89.00  
Apple® FireWire Kit.....\$199.00



## iMac™ Special Edition\*... only \$1088

Get double the RAM, a larger hard drive and an internal DVD-ROM drive! \*Factory refurbished by Apple, 3 year AppleCare warranty is available.

## Pre-Owned Macs at the lowest prices ever! Save Your Peripherals! Great price/performance!

Fully configured pre-owned Macs®  
6100 series, starting at .....\$98  
7100 series, starting at .....\$118  
7200 series, starting at .....\$148  
8100 series, starting at .....\$248  
7500 series, starting at .....\$278  
7600 series, starting at .....\$329  
6400 series, starting at .....\$349  
7300 series, starting at .....\$388  
8500 series, starting at .....\$468  
9500 series, starting at .....\$483  
9600 series, starting at .....\$799  
iMac™ 333's starting at .....\$738  
iMac™ 400 DV's, starting at .....\$888  
iBooks™, starting at .....\$1149  
Beige G3 Desktops, starting at .....\$939  
Blue & White G3's, starting at .....\$945  
G4 Graphite Towers, starting at .....\$1049  
PowerBook® 5300's, starting at .....\$499  
PowerBook® 1400's, starting at .....\$749  
PowerBook® 3400's, starting at .....\$848  
PowerBook® G3's, starting at .....\$1388

Factory Refurbished Macs®  
iMac™ G3/333 32/6/24x CD .....\$729  
iMac™ G3/350 64/6/24x CD .....\$779  
iMac™ G3/400 64/10/DVD .....\$899  
Graphite iMac™ 128/13/DVD .....\$1088  
Blue/White 400 128/9 UW/CD .....\$1088  
Graphite G4/350 64/10/DVD .....\$1098  
PowerTowers, starting at .....\$288  
PowerCtr Pro Towers, starting at .....\$499  
StarMax 4000's, starting at .....\$332  
Umax 5900's, starting at .....\$495  
New Blue/White 450 128/9/CD .....\$1349

Check our web site every Wednesday for our record-setting Bottom of the Barrel Blowouts!



We're the digital camera experts too!

## Cool deals on Digital Video Software!

Get Final Cut Pro w/a free Final Cut Keyboard!  
DigiEffects Cinelook Broadcast .....\$649  
DigiEffects Delirium.....\$649  
Boris Graffiti FREE w/full DV Systems!

## G3/450 Tower – \$999

With 128 MB RAM, 6 Gb hard drive!  
Reseller re-configured open box, 1 year manufacturer's warranty!



## Why PowerMax is Special

We understand there are lots of places to buy Mac® stuff, but we offer some things that we think are pretty unique:

- Choices – 800 number, internet site, email, fax, even in person at one of our Northwest locations. And we don't think anyone carries the variety of Macs® that we do!
- Things Like Not Using Voice Mail – How many times have you tried to get a hold of a reseller or manufacturer, whether for sales or tech support, and found your contact buried behind an automated voice mail system? We don't use voice mail for anyone in the company – and never plan to.
- Selection and Price – Over 30,000 separate software and hardware items at nationally competitive prices.
- Personalities – Only pleasant, intelligent people work for PowerMax. Sometimes we may have a little too much fun, but we're great people to get to know if you're living in a Mac world.

## Hard Drives, Printers, Displays & More

Contour Design Mouse Tray .....\$9  
Internal 56k modem for B&W G3 ..\$29  
Logitech Cordless Mouse .....\$29  
Gravis Firebird ADB joystick .....\$39  
Used Radius Full Page Display ...\$49  
Altec Lansing iMac Sound System ..\$59  
Internal 800 Mb Apple Drive .....\$79  
Graphite 17" & 15" LCD Blowout! \$Call  
Used 20" Apple Trinitron Display ..\$299  
Free! 20 CDR Disks with every CDR drive purchased – see our incredible variety of external drives at [www.powermax.com](http://www.powermax.com)!

## Canon Printer Bundle

We make it simple for our customers, buy any new G4 w/ and receive a Canon color USB printer FREE!



\*After mfrs rebate



Up to 24"!

## PowerMax Trinitrons® Can't Be Beat!

15" - G500 FD 70k .25mm	1280x1024 .....\$198
17" - G700 FD 86k .24mm	1600x1200 .....\$298
17" - G710 FD 95k .24mm	1920x1440 .....\$348
19" - G910 FD 110k .24mm	1729x1344 .....\$488
24" - A-4000T 86k .25mm	1900x1200.....\$1488



PowerMax FirePower™ FireWire Hard Drives  
30 Gigabytes .....\$369  
45 Gigabytes .....\$469

[WWW.POWERMAX.COM](http://WWW.POWERMAX.COM)

800-613-2072

Local: (503) 624-1827 • Fax (503) 624-1635  
email: [sales@powermax.com](mailto:sales@powermax.com)

Prices subject to change without notice. Prices reflect cash discount. Credit card orders strictly verified against fraudulent use. With use of credit card as payment customer acknowledges that some products are subject to final sale. Many prices are limited to stock on hand. All brand or product names are registered trademarks of their respective holders.

TradeUp **G4** with PowerMax!

- Personal Financing • Fast P.O. Approvals • Business Leasing • Weekly specials on our web site • Order on line or call one of our experts!



Authorized Reseller



G4s & Cubes DV iMacs™ iBooks™ PowerBooks® Blue & White G3's Beige G3's Software

# APPLEMUGSTORE.COM

## YET ANOTHER GOOD REASON TO JOIN A MAC USER'S GROUP



Package Deals!



Huge Selection!



New & Refurb!



As low as \$729!



Special Rebates!



The Latest Stuff!

Macintosh User Group members enjoy access to a very special Apple-sponsored web site featuring super deals on the latest Apple products as well as factory refurbished and discontinued Macs, and much more! Not a member? Find out how you can get these great deals by calling PowerMax at 800-689-8191.



Apple Specialist

[www.applemugstore.com](http://www.applemugstore.com)



Authorized Reseller

The MUG Store. A cooperative venture between Apple and PowerMax to bring MUG members exclusive deals on the latest Mac® products and special offers on discontinued and \*factory refurbished computers.

PowerMax is a division of Computer Stores NW, Corvallis, OR.



**WE BUY MACS AND MAC STUFF**  
(318) 424-9791

# SHREVE SYSTEMS

For all of this and more check out our website!  
<http://www.shreve.com>



**WE STOCK MAC PARTS!**

# 1-800-227-3971

FAX (318) 424-9771 Technical Support (318) 424-7987  
Customer Service (318) 424-9791 Purchasing (318) 424-6791  
1200 Marshall St Shreveport Louisiana 71101



**HP Deskjet 890**  
**ONLY \$249**

### PowerBook 5300cs

- Supports ext. video
- 24MB RAM
- 750 Hard Drive
- 100-MHz 603e
- Dual-scan color
- Refurbished



**ONLY \$549**

**ADD 56K PCM/CIA MODEM FOR ONLY \$100 MORE!**

### MacintoshLC580

**Internet Ready! \$249**

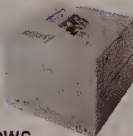
- 33-MHz MC68LC040
- 8MB of RAM
- 800MB Hard Drive
- 28.8 Motorola Modem



**\$299 with internal 4XCD**

### Color LaserWriter 12/600PS

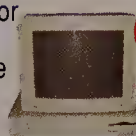
- 600-dpi
- 12 ppm
- Color Photograde
- LocalTalk, Ethernet
- Mac, DOS, Unix or Windows
- Toner included



**Refurbished ... \$1299**

### PowerMac 6100 Bundle

- \*Includes 13" Monitor
- \*8 MB Ram
- \*250 MB Hard Drive
- \*2X CD
- \*modem



**ONLY \$199**

**1-800-227-3971**

## Monitor Blowout Extravaganza!

**AS LOW AS \$89!**

**ONLY \$329**



**Apple 17" Studio Display**



**PowerComputing 17" Monitor**

**ONLY \$169!**

Factory Refurbished



**NEW!**

**Voxon 14" and 15" Monitors**

See our line items below for other monitor blowout specials!

## Blue & White G3's

**NEW! ON SALE!**

**ONLY \$1,249**



- 450-MHz PowerPC
- 128 MB RAM
- 9 GB Ultra Wide SCSI HD
- CD
- \* Keyboard & Mouse
- 16 MB ATI Rage Pro Video Card

**BRAND NEW!**

**MacAly Extended Keyboard**



**NEW! \$19**

**NEW! Genuine Apple ADB Mouse II**



**\$49**

**ClarisWorks 3.0 CROSS-PLATFORM FOR MAC OR PC**



**ONLY \$19!**

## Back to School FLOPPY DRIVE BLOWOUT!



**STARTING AT \$19!**

PART # 661-0474

## 1.44 SuperDrives

NO EXCHANGE REQUIRED!

**We stock parts for new and vintage Macs!**

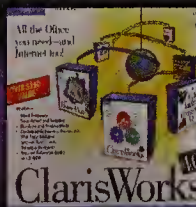
**We also specialize in digital audio recording! Call for the best prices on Alesis, Akai, Tascam, Digidesign and Mark of the Unicorn!**



**FINALLY! A REAL PERSONAL HOME STUDIO THAT YOU CAN AFFORD!**

**AS LOW AS \$699**

Check out our website at [www.shreveaudio.com](http://www.shreveaudio.com)



**ClarisWorks 4 Internet Edition**

**ONLY \$39! NEW!**

## System Bundles SALE!

7100/60	5200	4400	5400/120	8500/120	7250/120	7200/75
24/350/CD/13" Monitor	24/350/CD/15" Monitor	32/2GB/CD	16/1.6GB/CD	16/1GB/4X	32/2GB/8XCD	0/0/0
<b>\$349</b>	<b>\$399</b>	<b>\$499</b>	<b>\$699</b>	<b>\$699</b>	<b>\$499</b>	<b>\$199</b>
refurbished	refurbished	refurbished	refurbished	refurbished	NEW	refurbished

## PowerMac CPU SALE!

### PRINTERS

Apple 11x17 Color Inkjet Printer <b>NEW</b> , #M9500	\$299
HP Deskjet 890 CM, <b>NEW</b>	\$249
Apple StyleWriter 1200, refurbished	\$129
Apple StyleWriter 1500, factory refurbished	\$149
Apple StyleWriter 2400, refurbished	\$129
LaserWriter 11nt, refurbished w/Toner	\$199
LaserWriter 11f w/5MB RAM, refurbished	\$549
LaserWriter 11g w/5MB RAM, refurbished	\$649
Texas Instruments Micro Laser Pro E <b>NEW</b>	\$499

Laser toner cartridges sold separately

### MACINTOSH LOGIC BOARDS

G3 logic board, No Processor, No ROM	\$399
7200/90 logic board, refurbished	\$179
LC logic board, refurbished	\$49
LC II logic board, refurbished	\$149
Mac LCIII logic board, refurbished, exchange	\$149
Performa 630, No Processor, refurbished	\$49
Quadra 950 logic board, refurbished	\$179

### MONITORS

Apple 17" Studio Display <b>NEW</b>	\$329
Apple 14" A/V <b>NEW</b>	\$129
Apple 14" Multiscan, refurbished	\$119
Apple 15" Multiscan, refurbished	\$129
Apple 15" AV, factory refurbished	\$199
Apple MultiScan 17", refurbished	\$179
Apple 20" Multiscan, refurbished	\$699
Radius IntelliColor/20e, factory refurbished	\$999
Voxon 14" Multiscan <b>NEW</b>	\$99
Voxon 15" Multiscan <b>NEW</b>	\$129
Power Computing 15" refurbished	\$119
Power Computing 17" refurbished	\$169

### NUBUS ADAPTERS

Quadra 660AV NuBus Adapter	\$69
Quadra 610 NuBus Adapter	\$69
Ilisi NuBus adapter with math co-processor	\$49

### VIDEO CARDS

ATI XClaimVR RAGE II 2MB with <b>FREE</b> TV Option	\$149
E-Machines DoubleColor SX NuBus Card <b>NEW</b>	\$29
RasterOps 24MX <b>NEW</b> , 24-bit NuBus	\$149
*PowerMac HPV Card (1MB)	\$79
*PowerMac A/V Card (2MB)	\$199

### IMAGING PRODUCTS

Apple QuickTake 150 refurbished	\$149
Apple QuickTake 100 refurbished	\$99

### APPLE PC COMPATIBILITY CARDS

Pentium 100-MHz, refurbished	\$149
Pentium 166-MHz, 12" PCI card, refurbished	\$299
586 100-MHz, 7" PCI card, refurbished	\$99
486 66-MHz for 6100 series, <b>NEW</b>	\$29

\*Products are refurbished unless indicated as "new". Prices reflect a 2% cash discount and are subject to change without notice. Returns are subject to a 15% restocking fee. Not responsible for typographical errors. All trade-ins **MUST** BE in working condition. Refurbished systems may include like-new components and may also include cosmetic blemishes which do not functionally impair performance of the hardware.

**1-800-227-3971**

[www.shreve.com](http://www.shreve.com)



**Infinity Micro**  
800-589-1234

**\$1899.**  
PowerBook  
G3/333

**\$1195.**  
iBook  
G3/300

**\$789.**  
iMac  
G3/350

**\$2195.**  
CUBE  
G4/500

**(800) 589-1234**

<http://www.infinity-micro.com>  
email us at: [Sales@infinity-micro.com](mailto:Sales@infinity-micro.com)

Mon-Friday 8AM-6PM. 24 HR. Online Ordering. 10917 W. PICO BLVD. LA, CA. 90064 Int. (310) 470-9426, Fax: (310) 470-4956

### PowerMacs

DUAL G4/450 128/30GB/DVD/56K	552325
DUAL G4/500 256/40GB/DVD/56K	3275
CUBE G4/450 64/20GB/DVD/56K	1785
CUBE G4/500 128/30GB/DVD/56K	2195
G4/500 256/27GB/DVD/Zip	2325
G4/450 256/27GB/DVD/ZIP	1995
G4/450 128/20GB/DVD/Z/56K/ZIP	1735
G4/400 128/20GB/DVD/56K/ZIP	1595
G4/400 64/10GB/CD/56K	1195
G4/400 64/10GB/DVD/56K	1299
G4/400 64/20GB/DVD/56K	1499
G4/350 64/10GB/DVD/56K	1295
G4/350 64/10GB/DVD/56K	1099
G3/400 128/12G/24XCD/ZIP	1195
G3/400 64/6GB/DVD	995
G3/266DT 32/4GIG/24X	CALL
9600/233 32/4GB/CD	CALL
8600/300 32/4GB/CD/ZIP	795
7300/200 32/2GIG/24X*	345
4400/200 32/2GB/CD *	349
7200/120 32/1.2/8XCD*	349

### iMacs

G3/500 SNOW 128/30GB/DVD/56	1489
G3/500 DVSE 128/30GB/DVD/56	1489
G3/450 DV+ Indigo 64/20GB/DVD	1289
G3/450 DV+ Ruby 64/20GB/DVD	1289
G3/450 DV+ Sage 64/20GB/DVD	1289
G3/400 DV Indigo 64/10GB/CD/56K	975
G3/400 DV Ruby 64/10GB/CD/56K	975
G3/400SE 128/13GB/DVD/56K	1095
G3/400 64/10GB/DVD/56K*	899
G3/350 64/6GB/24XCD	799
G3/333 32/6G/24XCD*	699
Server G3/350 128/20GB/DVD/A	1699
Server G3/450 256/2x9G/24X/A	1895
Server G4/500 256/18GB/DVD/A.S	3295

### PowerBooks

G3/500 128/20GB/DVD/14.1/56K	3399
G3/500 128/12G/DVD/14.1/56K	2995
G3/400 64/10GB/CD/56K/14.1"	2395
G3/400 64/6GB/DVD/56K/14.1	2195
G3/333 64/4G/24X/56K/14.1	1895
G3/300 64/8GB/DVD/56K/14.1*	CALL
G3/300 64/8GB/CD/56K/14.1*	1699
G3/266 64/4G/20X/56K/14.1*	1529
G3/233 32/2G/20X/56K/14.1*	1399
3400C/240 16/3GB/CD/MDM*	999
3400C/200 16/2GB/CD/MDM*	799

### iBooks

G3/466 64/10gb/dvd/56 Graphite	1695
G3/366 64/10gb/cd/56k Indigo	1449
G3/366 64/6GB/Graphite	1595
G3/300 32/3.2GB Tangerine	1195
G3/300 32/3.2GB Blueberry	1195
G3/300 64/6GB/Blueberry	1395
G3/300 64/6GB/Tangerine	1585

**18" LCD Monitor**  
**\$2495.00**

**Apple 15" LCD**  
**\$799.00** M7612LL/A  
**\$949.00** M7928ZM/A



VP140/VG151	895/995
VE150/VG150B	895/949
VPA-150/VE150B	995/995
VG150/M50	895/189
E655/Q55	169/159
4492A/500XA	215/1099
447XS/447XPRO	379/539
E773/Q75	259/299
PF77/PF775	395/359
GS773/G773	299/289
PS775/44721	349/349
E771/Q71	229/219
EF70/800XA	299/2895
VG181/VPD180	2595/2895
PF790/PS790	495/399
E790/E790B	395/429
GS790	449
Q95/445PRO	349/1095
Q115/GS815	695/849
4452A/446XPRO-V	895/749
800PRO +	3099
44721	349

### SONY

E100/E210/E200L	199/359/349
E400/E500	529/1039
A200/G200	349/399
G400/G500	629/1099
CPDL181A/M151	2645/989
FW900/500PS	2399/1049

### 3Com

PALM IIIC	349
PALM VX	399
PALM VII	399
Palm VIIx	429

Sony Dsc-D770	675
SONY FD85/FD73	599/399
SONY S30/S70	399/799
SONY DCM-M1 Discam	1295
Nikon Coolpix 990	895
Nikon Coolpix 900	795



1100xi/1100axi	349/379
3100xi/3150xi	475/499
2100M/2100TN	699/999
4000N/4000TN	999/1299
4050N/4050TN	1240/1375
4500/4500N	2129/2595
4500DN/5000	3399/1495
5000N/5000GN	1869/2249
8000/8000N	1735/2159
8000DN	2695
8100/8100N	CALL
8100DN	CALL
8500	3299
8500N	3895
8500DN	5575
2500CP/3000CP	8895/10250

### EPSON

Stylus Pro-XL 11x17	199
EPL5700/LQ570E	389/279
Stylus 2000/3000	115/1195
Stylus 2500/2500PRO	295/379
Stylus 740/860	129/139
Stylus 850NE/900	439/249
Stylus 900G/760	239/139
Photo 1270/2000P	495/829
Photo 750/870	169/299
Photo 875dc	379
Pro 5000/5000f	2499/6395
Pro 7000/9000	3795/7495
Pro 9000Fiery	12499

### AGFA

Duoscan HID/T1200	2395/675
Photo 780c	239
Snapscan 1212U/E40	99/179
SnapScan E50/Touch USB	99/109

### EPSON

EXP. 1600/1600PRO	799/1299
EXP. 1600PROFB/SEFB	1039/745
1640XL/1200S	2179/295
1200U/1200UPHOTO	199/289
610/636U	109/99



Artixscan 1100/4000T	1595/1649
MVP700S//MVP800X	2295/3199
IMAGE DECK/4DP	479/549
ScanMaker 3600/3700	99/129
ScanMaker 4700/5	289/1279
Scanmaker 6400XL	789
Scanmaker 9600XL	1129
ScanMaker V6UPL/V6USL	149/349
SCANMAKER X6 /X6EL	99/139

### UMAX

Powerlook 1100 /1100Duo	1339/999
Powerlook 2100xl/2100xlle	1899/1449
Powerlook III fd/ III	799/1099
PowerLook III pci	599
Mirage II/IISE PHT./IISE	5895/949
PowerLook 3000	4999
PowerLook IIISE/II	CALL

**Call for full line of PC Notebooks**

Sony Vaio, Compaq, Hp IBM, Compaq, Toshiba all instock!!!

(\* reflects reconditioned products. Visa, MC and American Express Fortune 500, Universities, Government & corporate p.o.'s are welcomed. Prices listed are cash discounted & are subject to change without notice.)

Circle 202 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

 <b>www.icni.com</b> <b>PowerMac 8600</b> 300MHz/32/4GB CD/Zip <b>\$699</b> <b>POWER BOOKS</b> G3 500 MHZ/128MB/12GB/DVD .....\$2999 G3 400 MHZ/64MB/6GB/DVD .....\$2269 G3 333 MHZ/64MB/4GB/CD* .....\$1649 G3 266 MHZ/64MB/6GB/CD* .....\$1569 G3 250 MHZ/32MB/4GB/CD* .....\$1295 G3 233 MHZ/32MB/2GB/CD* .....\$1229 3400 / 200 MHZ/16MB/2GB/CD* .....\$699 5300c / 100 MHZ/16MB/750* .....\$399 3400 / 240 MHZ/16MB/3GB/CD .....\$795 iBook 300MHz/32MB/3GB/CD/56K/ETH \$1049 iBook 366MHz/64MB/6GB/CD/56K/ETH \$1429	<b>PowerBook G3</b> 250MHz/64/4GB/CD/Mod <b>\$1289</b>	<b>iMac 333MHz</b> 32/6GB/CD/Modem <b>\$629</b>	<b>PowerBook 3400</b> 200MHz/16MB/8GB CD/Mod/ETH <b>\$695</b> Add 32MB Memory for only \$39	<b>PowerMac G3</b> 266/32/6GB/CD/Zip/AV <b>SCSI \$895</b>	<b>Apple Zip &amp; CD</b> Zip 100MB IDE \$45 8XCD SCSI \$45 32XCD IDE \$55
	<b>POWER MACS</b> G4 500 DUAL/256MB/40GB/DVD/KB/56K \$3339 G4 500 MHZ/256MB/27GB/DVD .....\$2295 G4 450 DUAL/128MB/30GB/DVD/KB/56K \$2429 G4 450 MHZ/128MB/20GB/DVD .....\$1829 G4 450 Cube/64MB/20GB/DVD/KB/56K \$1789 G4 400 MHZ/64MB/20GB/DVD/KB/56K ..\$1569 G4 400 MHZ/64MB/10GB/DVD .....\$1329 G3 400 MHZ/128MB/9GB UW/CD...\$1090 G3 350 MHZ/64MB/6GB/CD .....\$929 G3 266 MHZ/32MB/4GB/CD/(scsi) ..\$899 9600 300 MHZ/64MB/4GB/CD .....\$969 9600 200 MHZ/32MB/4GB/CD .....\$699 9500 150 MHZ/16MB/2GB/CD .....\$429 8600 200 MHZ/32MB/2GB/CD .....\$549 8500 150 MHZ/16MB/2GB/CD .....\$395 7600 132 MHZ/16MB/1GB/CD .....\$279 7300 200 MHZ/16MB/2GB/CD .....\$385 7200 120 MHZ/16MB/1GB/CD .....\$239				
	<b>MONITORS</b> APPLE 21" Studio* .....\$999 APPLE 20" Multiple Scan* .....\$325 APPLE 20" 850 Vision* .....\$569 APPLE 1710 Vision* .....\$119 APPLE 17" Studio* .....\$295 APPLE 17" 1705* .....\$99 APPLE 15" Studio Flat* .....\$795				
	<b>HARD DRIVES</b> HD 1GB Quantum IDE / FBTMA1280T ....\$39 HD 2GB Quantum SCSI / FBTMS 2110S....\$69 HD 4GB IBM DCA534 300.....\$109 HD 9GB IBM SCSI (UW)/DNES 309170 ..\$165				
<b>CD DRIVES</b> 32xCD-ROM IDE .....\$55 12xCD-ROM SCSI .....\$75 8xCD-ROM SCSI ...\$45 4xCD-ROM SCSI ...\$29					
<b>IMACS</b> iMac 233MHz/32/4GB/CD/Modem.....\$559 iMac 333MHz/32/6GB/CD/Modem.....\$629 iMac 350MHz/64/6GB/CD/Modem.....\$755 iMac 400MHz DV/64/10GB/DVD/Modem .....\$895 iMac 450MHz/128/20GB/DVD/Modem .....\$1289 iMac 500MHz/128/30GB/DVD/Modem .....\$1489					
<b>Canon PowerShot S100 Digital Elph</b> • 2.11 megapixels • Quality Zoom lens • Plug-and-play USB • Mac and PC \$599					
<b>ICN</b> has the largest inventory of Apple & Toshiba parts USB & FireWire Peripherals.					
1.800.472.4921 Tel: 310-445-6600 Fax: (310) 445-6611 FAX TOLL FREE/JAPAN: 00-31-114211 11755 Exposition Blvd. Los Angeles CA 90064					

Prices Subject to Change Without Notice • All Prices reflect 3% Cash Discount • \* Refurbished  
ICN is Not An Authorized Apple Dealer • All Trademarks Are Property Of Their Respective Companies.



# Custom **ULTRA-3 SCSI LVD 160MB/s** - **Ultra 66 IDE** - **Firewire 1394**

If you want Ultra SCSI Performance use our Quality Cables & Active Terminators.

High Performance Solutions for Ultra66 IDE and Firewire Improves Performance

## SCSIVue™ Active Terminator



Seven models available with optional Remote LED Pak. These are the finest terminators available, they fix SCSI problems and improve reliability.

**Benefits:**

- Improves SCSI Bus Performance
- Less Errors; More Reliable Data Transfer
- Diagnoses Problems • Analyzes Signal Quality

**Features:**

- Active Regulation • Fast 50 & Fast Wide 68
- Status Indicators • Gold Contacts

## Hot Swap Powered Terminator

Now you can safely remove any SCSI device from a SCSI chain by simply clicking a switch. Optional Power Supply can provide termination power to portable setups or when termination power is not being supplied by other devices.

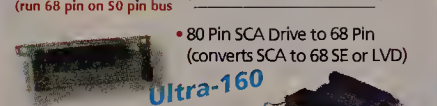
## Gold Diagnostic Adapters

Both 50 pin and 68 pin (all combinations)

**From: \$39**

**Gender Changer**

- 68 Pin Drive to 50 Pin IDC (runs wide drive as narrow)
- 80 Pin SCA Drive to 68 Pin (converts SCA to 68 SE or LVD)



For Adaptec Ultra Wide Cards

- Adapters with partial termination built in for 68 to 50
- 68 Pin to 50 Pin Centronics converters (converts Host Adapter) or 50 Pin MicroD Adapters

Online Catalog at... [www.scsipro.com](http://www.scsipro.com)

## SCSIVue™ Gold Diagnostic Cables

**Benefits:**

- No Loss Of Important Data
- Faster Performance
- Test Cable Integrity

**Features:**

- Diagnostic Indicators • Large Ferrite Filters
- Triple Shielding (Unique Design)
- Double Gold 20u" Plated Connectors
- Extra Heavy 26 Gauge Wire • 100 Styles in Stock

## Gold VHD Ultra SCSI Cables

**From: \$109**

**Features:**

- New .8mm Ultra 160 LVD SCSI Connector
- Triple Shielding (Unique Design)
- Double Gold 20u" Plated Connectors
- Diagnostic Indicators • Large Ferrite Filters

## FireVue™ Gold Firewire 1394 Cables

Diagnostic LED monitors power on the Firewire cable. Gold Connectors, Ferrite Beads, and perfect cable characteristics. Lengths up to 32', both 4 and 6 pins.

**From: \$29**

## FireVue™ Firewire 1394 to Cardbus

The perfect solution for any PCMCIA Laptop or Portable computer. This card is both Mac and PC compatible. Gives you two 1394 6-pin Firewire connectors. Supports up to 400Mb speed. Optional Power Supply

**From: \$159**

## FireVue™ Firewire 1394 to PCI Host

Gives you four 1394 6-pin Firewire connectors. IEEE Standard compliant with auxiliary power connector on card. Supports up to 400Mb speed. Both Mac and PC compatible.

**From: \$159**

Granite Cables Are The Best Because They're Engineered Right.

**Granite**  
D-I-G-I-T-A-L

Granite "The Solution Company"

3101 Whipple Rd. Union City, CA. 94587 Ph: 510-471-6442 Fax 510-471-6267

## LVD-TPO Teflon® Internal Cables

**Benefits:**

- Less Errors, Ultimate Performance
- Silver Wire Improves Signal Quality

**Features:**

- Perfect 90 or 132 Ohm Impedance • Custom in 1 Day
- Triple Pronged Connector • Gold contacts Silver Wire

**From: \$39**

## SCSI Cable Tester - LED Readout

This Digital SCSI Cable Tester can test all the popular cable styles for opens, shorts, and unreliable operation. Battery powered for easy use

**Special Package \$99**

Three models to choose from: • 50 IDC • 50 Cen • 68 MD

## IDEVue™ Gold Ultra 66 TPO Cables

Ultra 66 TPO Cables use 80 conductor cable and special 40 pin connectors. The best you can buy.

**From: \$29.95**

## IDEVue™ Ultra 66 Hot Swap Bay

The IDE Ultra66 Hot Swap Bay works with hard drives and removable drives. Includes cooling fan, key lock, and 96 pin high reliability interconnection. LED indicators for Power and HDD Activity.

**From: \$39.95**

## IDEVue™ Ultra 33 Raid Controller

Speeds up to 55MB/s! 1/2 of a Terabyte with today's new larger capacity drives. Cost effective and fast. Linux, Win 98, NT, 2000

**From: \$445**

## External Ultra SCSI Cases

Ultra SCSI Custom Teflon Cable Available

- Custom Enclosures in 1 Day for Raid & Arrays

**From: \$99**

## Temperature ALARM!

Automatic Monitor & Control

**14 & 29 Bay**

**From: \$999**

## Bay Cooler Kit keeps those HOT Ultra SCSI Drives COLD as ICE!

Dual Fan & Bracket \$29

## HOT SWAP Pull Out Bays

Compatible with all 50 pin & 68 pin SCSI Buses up to Fast SCSI 2. **From: \$79**

## Active Digital SCSI Repeater

Models for all SCSI types

- Fixes SCSI Cable Problems
- Doubles Cable Length (up to 18')

**From: \$99**

**FREE Technical Support!!!**

Available to everyone, customer or not.

## Save on Reconditioned Macs & Peripherals

### POWERMACS

7200/120 24/1G/CD	\$199
7300/180 32/2G/CD	\$399
7500/100 24/1G/CD	\$299
7600/132 24/1G/CD	\$329
8500/120 32/1G/CD	\$299
9500/132 32/2G/CD	\$349
9600/200 32/2G/CD	\$599
G3/233 DT 32/4G/CD	\$849

All CPUs include mouse

More products @ [www.datatech-rmkt.com](http://www.datatech-rmkt.com)

### MONITORS

14" Apple Trinitron	\$99
15" Apple MultiScan	\$99
15" AV MultiScan	\$129
17" Apple MultiScan	\$149

### POWERBOOKS

5300c 16/750	\$349
1400c/133 16/1G/CD	\$599
3400c/200 32/1G/CD	\$849
G3/233 32/2G/CD	\$1199

### TO ORDER CALL

**1-800-281-3661**

**DataTech**

REMARKETING, INC.

Ask about the 6-month warranty. VISA & MasterCard accepted.

Tel: 615-860-4422 Fax: 615-860-0390  
471 Myatt Dr, Madison, TN 37115

Corporate names and trademarks are the property of their respective owners.

## macs for rent

from DataTech Remarketing

Rent what you need now—  
for as long as you need it.

log on & inquire  
[www.macsforrent.com](http://www.macsforrent.com)  
or call 1.800.281.3661

**DIGITAL PREPRESS SYSTEMS**

## Rebuilt Imagesetters

(714) 892-5290

Fax: (714) 892-4361

**www.prepresssystems.com**

email: [prepress77@hotmail.com](mailto:prepress77@hotmail.com)

**SAPHIR SCANNERS**

**HOWTEK DRUM CANNER**

**HARLEQUIN RIP**

**SILKSCREENING**

**PROCESS COLOR SYSTEM**

**PLATE MAKING SYSTEM**

## MEGA MACS.COM

• Toast 4.0.1.1 or OS 8.1	\$39
• Norton AntiVirus 6 / Utilities 4	\$19/\$9
• DreamWeaver 2.0/3.0	\$39/\$159
• OmniPage 7.0/8.0	\$45/\$129
• RayDreamStudio 5.5 or Timbuktu	\$79
• Apple 4x/24x int. SCSI CD ROM	\$19/\$89
• Ext. 56K Modems Serial or USB	\$39
• 1GB Ext. SCSI Drive w/ cable & term	\$59
• PowerBook Batteries	from \$29
• Logitech QuickCamVC COLOR ref	\$39
• Ricoh Ext. SCSI CDRW w/toast	\$149
• Iomega PCI SCSI 2 Card	\$25
• 17 inch .26 Digital Color Monitor	\$139

Get FREE software with orders placed on our website

**918-664-MACS (6227)**

fax: 918-663-6340 All Prices reflect 3% Cash Discount

## Mac Global

SYSTEMS AND PERIPHERALS Y SALES AND SERVICE

• Powermacs	• G3 Upgrade
• Powerbooks	• Printers
• i-macs	• Network Hubs
• Clones	• Ram
• Hard drives	• 24 Hour Repair

• We Buy and Trade Upgrade

For more product information and prices call, or visit

**www.globaldeals.com**

15466 Los Gatos Blvd. #109-265, Los Gatos, CA 95032

Tel. (408) 265-6653

Fax (408) 265-6660

**1-800-722-8864**

178 on card or [www.macworld.com/getinfo](http://www.macworld.com/getinfo)





**HOT PRODUCT!**

**Xcarét Pro**  
**Expansion Bay CDRW**



For PowerBook G3 98 or  
PowerBook G3 99/2000

**4x4x20**

**\$449**

- Bootable! • Hot Swappable
- Fast Backup or Data Transfer
- Adaptec Toast™ Software
- Protective MCE Carrying Case

## CUSTOM POWERBOOK CONFIGURATIONS

ASK ABOUT OTHER CUSTOM CONFIGURATIONS & BUNDLES!



### Apple PowerBook 2000

- 400MHz/1MB L2 cache
- **20GB MCE Hard Drive**
- 14.1" Display
- 128MB SDRAM
- 2 FireWire Ports
- 2 USB Ports
- DVD-ROM Drive
- AirPort Ready



**\$2799**

compare to \$2999\*

w/30GB HD!...\$3099  
\*in place of 20GB HD; compare to \$3299\*

### Apple PowerBook 2000

- 500MHz/1MB L2 cache
- **30GB MCE Hard Drive**
- 14.1" Display
- 128MB SDRAM
- 2 FireWire Ports
- 2 USB Ports
- DVD-ROM Drive
- AirPort Ready



**\$3599**

compare to \$3799\*

w/extra Micro-AC Adapter  
& Battery...\$3799  
compare to \$3997\*

\* Apple Store 9/22/00

### Apple PowerBook 2000

#### Media Developer Bundle

- 500MHz/1MB L2 cache
- **30GB MCE Hard Drive**
- **MCE Expansion Bay CDRW Drive**
- 512MB SDRAM • DVD-ROM Drive
- 14.1" Display • 2 USB Ports
- 2 FireWire Ports • AirPort Ready

**\$4999**

w/MCE 30GB Xcarét Pro  
Expansion Bay Hard Drive...\$5599

- Wireless networking w/ optional AirPort card and base. AirPort card...\$99 Base...\$295

Audio  
& Video  
Developer  
PowerBook  
Bundles

## COMPLETE POWERBOOK STORAGE SOLUTIONS by MCE Mac

### MCE MobileStor

THE BEST Internal Hard Drive Upgrade Kits for your PowerBook!

For use in PB 2000, iBook, PB G3 Series, G3, 3400, 2400, 1400, 5300, 190, & Duo 2300

<b>MobileStor 6G</b>	6GB	3 yr wty	<b>\$189</b>
<b>MobileStor 12G</b>	12GB	3 yr wty	<b>\$249</b>
<b>MobileStor 20G</b>	20GB	3 yr wty	<b>\$299</b>
<b>MobileStor 30G</b>	30GB	3 yr wty	<b>\$499</b>

Included **FREE** in every MCE MobileStor hard drive upgrade solution is the **complete MCE PowerBook Hard Drive Installation Kit** which includes an illustrated installation manual, and all of the appropriate tools and brackets needed for the proper installation of your new MCE MobileStor hard drive kit.

### MCE Xcarét Pro

Expansion Bay Hard Drives

- Ultra Fast! • Hot Swappable • Bootable
- Compact • Protective MCE Carrying Case
- Kit is perfect for your old internal PB drive!

multimedia tuned	30GB	20GB	12GB	6GB	Kit
	150 min.*	100 min.*	60 min.*	30 min.*	
	<b>\$649</b>	<b>\$449</b>	<b>\$399</b>	<b>\$299</b>	<b>\$149</b>

\*approximate FireWire DV Video Capture time in minutes. See web site for details.

### MCE DataShuttle

PC Card Hard Drives

- Portable
- Hot Swappable
- Protective Case
- Kit is perfect for your old internal PB drive

30GB	20GB	12GB	6GB	Kit
<b>\$589</b>	<b>\$389</b>	<b>\$329</b>	<b>\$269</b>	<b>\$99</b>

\*In place of PC Card interface. See web site for details.

Ultra-DMA Drives!

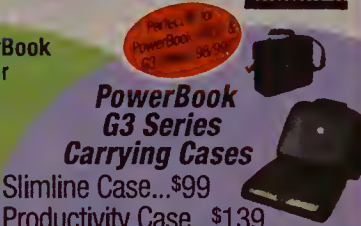
### WORLD'S SMALLEST POWERBOOK AC ADAPTER!

FOR PB 2000, iBook, PB G3, 3400, 2400, 1400 & 2300  
SMALLER THAN APPLE'S SMALLEST ADAPTER!!



Micro-AC Adapter  
**only \$85**  
Save space and weight in your carrying case!!

### MADSONLINE



Slimline Case...\$99  
Productivity Case...\$139

### MCE CardBus Upgrade Service

for PB 2400 & 3400/G3

opens up the possibilities for USB, FireWire, 10/100 Ethernet, expanded Video

See website for details!

### RATOC Systems

- CBFW2 FireWire CardBus PC Card **\$129**
- CB31PB Ultra SCSI CardBus PC Card **\$129**
- CB32PB UltraWide SCSI CardBus PC Card **\$259**

### TURN YOUR POWERBOOK OR IBOOK INTO A VIDEO POWERHOUSE!

- CapSure Card **\$119**
- Kritter USB Camera **\$119**
- CapSure/Kritter SV **BUNDLE DEAL \$239**
- Kritter SV Camera **\$139**

### PowerBook & iBook Memory Upgrades!!

See our web site for latest pricing!!

- Apple Computer
- PowerBook 2400 Battery **\$249**
- PowerBook G3 99/2000 Battery **\$139**

### VST TECHNOLOGIES Incorporated

FireWire Portable Drives

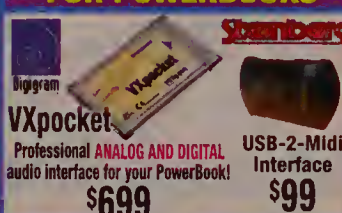
Expansion Bay Zip Drives

100MB starting at \$199  
250MB \$279

6GB \$369  
18GB \$635

Charger, Battery & AC Adapter Bundle **\$299**

### PRO AUDIO EQUIPMENT FOR POWERBOOKS



VXpocket Professional ANALOG AND DIGITAL audio interface for your PowerBook! **\$699**

USB-2-Midi Interface **\$99**

### macally

iMouse Jr. **\$29**

CardBus to USB Adapter **\$79**

### iHub Jr.

3 Port USB Hub **\$39**

USB Floppy Drive **\$69**

### MCE Expansion Bay Device Carrying Case

Convenient protection for expansion bay devices! **\$19**

### MCE USB Mobile Mini Mouse

**\$29**

### Klear Screen

PowerBook Screen Cleaner  
three 6-packs **\$25**

### Kensington Notebook MicroSaver Security System

**\$43**

Canon BJC-85 Portable USB Bubble Jet Printer **\$299**







## MEMORY

Online Discounted Memory Pricing available only at [www.macsolutions.com](http://www.macsolutions.com)

### BEST PRICES!

MEMORY mb	16	32	64	128	256	512
G3/G4	-	\$36	\$49	\$99	\$239	\$449
iMac™ 350	-	\$36	\$49	\$99	\$239	-
iMac™ 233-333	-	\$36	\$50	\$100	\$239	-
iBook™	-	\$36	\$49	\$99	\$239	-
PowerBook G3(98/99)	-	\$36	\$50	\$100	\$239	\$469
168 pin DIMMs	\$21	\$47	\$87	\$156	-	-
72 pin SIMMs	\$20	\$37	-	-	-	-
30 pin SIMMs	\$19	-	-	-	-	-

All prices are subject to change without notice. Not responsible for typographic errors. Limited to stock on hand.

\*New Macs available for Walk-In sales only.

#### SPECIALS!!

Mac® OS 8.1 CD only	25
Norton Utilities 4.0	29
FireWire 30gb 7200rpm ExtHD	329
FireWire 45gb 7200rpm ExtHD	399
FireWire 60gb 7200rpm ExtHD	599

#### NEW MACS!\*

G4/400 64/10gb/DVD/56k	\$1299
G4 Cube 450 64/20gb/DVD/56k	WOW!
iMac™ 350MHz 64/7gb/CD/56k	\$799
PwrBk G3-400 64/10gb	WOW!

Special pricing on our website. GO There!!

Apple Authorized Dealer Apple Specialist Apple Authorized Service Provider

MacSolutions, Inc. Fax: (310) 966-4433  
11933 Wilshire Blvd, West Los Angeles, CA 90025  
University & School P.O.'s Welcome. Ad code 913



Call 800-873-3RAM or Order Online at  
[www.macsolutions.com](http://www.macsolutions.com)

## WHY IS THE COMPETITION SHAKING?

### BECAUSE 1-800-4-MEMORY IS HERE

## WE CAN BEAT ANY QUOTED PRICE ON ANY MEMORY FOR ANY COMPUTER (NOTEBOOK, DESKTOP, PRINTERS) ANYWHERE... PERIOD!

- LIFETIME WARRANTY
- FREE TECH SUPPORT
- NO CREDIT CARD SURCHARGE
- MOST ORDERS SHIPPED SAME DAY

## CALL AROUND THEN CALL US

CHECK OUR WEB SITE FOR SPECIALS  
[WWW.18004MEMORY.COM](http://WWW.18004MEMORY.COM)

# The LLB Company Inc.

MEMORY MADNESS FROM THE LLB COMPANY

## 1-800-848-8967

### DIMMs

**\$135** 128MB

BEIGE G3- PC 66

32MB4x64.....	\$39
64MB8x64.....	\$69
128MB16x64.....	\$135
256MB32x64.....	\$305

**\$215** 64MB

168 PIN EDO 3.3VOLT

16MB2x64.....	\$40
32MB4x64.....	\$105
64MB8x64.....	\$215

**\$215** 64MB

168 PIN EDO 5 VOLT

16MB 2x64x.....	\$40
32MB 4x64.....	\$99
64MB 8x64.....	\$215

### DIMMs

**\$69** 64MB

G4/BLUE/WHITE G3- PC100

64MB8x64.....	\$69
128MB16x64.....	\$135
256MB32x64.....	\$305

**\$99** 32MB

168 PIN FAST PAGE DIMMs

32MB4x64.....	\$99
64MB8x64.....	\$215
128MB16x64.....	\$275

### SIMMs

**\$85** 32MB

72 PIN FAST PAGE SIMMs

8MB2x32.....	\$22
16MB4x32.....	\$38
32MB8x32.....	\$85

### IOMEGA

Zip Drive USB	\$145
ZIP 100 disk	\$10
ZIP 100 disks -3-pk	\$28
ZIP 100 disks -10-pk	\$89
Jaz 1GB disk	\$89
Jaz 1GB disks - 5-pk	\$405
Jaz 1GB disks - 20-pk	\$1524

### NEWER TECHNOLOGY

For the PowerMac 6100 Series	
Maxpowr G3 210MHz/512K Cache	\$250
Maxpowr G3 240MHz/1MB Cache	\$299
NEW For the PowerMac 7500/8500/ Etc.	
Maxpowr G3 400MHz/1MB Cache	\$414
Maxpowr G3 500MHz/1MB Cache	\$549
NEW For the PowerMac G3 Series	
Maxpowr G3 400MHz/1MB Cache	\$419
Maxpowr G3 500MHz/1MB Cache	\$539

### Powerbook

WALL ST./ iMAC

256MB	\$310
128MB	\$155
64MB	\$70
32MB	\$45

iBOOK

256MB	\$310
128MB	\$155
64MB	\$69
32MB	\$45

PB PISMO SERIES

256MB	\$330
128MB	\$174
64MB	\$85
32MB	\$47

PB 5300 SERIES

48MB	\$150
32MB	\$120
16MB	\$60
8MB	\$55

### DESKTOP/MINITOWER

iMAC 233 32/4GB/24X CD/56k	\$1039
iMAC 333 32/6GB/24X CD/56K	\$1179
G4/350 (MT) 64/10GB/24X CD	\$1570
G4/400 (MT) 128/20GB/DVD	\$2494
G4/450 (MT) 256/27GB/DVD	\$2970

### POWERBOOKS

iBOOK 32/3GB/24X12.1ATV	\$1599
G3/333 64/4GB/24X14.1TFT	\$2199
G3/400 64/4GB/24X14.1 TFT	\$2499
G3/500 128/6GB/DVD/14.1 TFT	\$3499
PB 500 SERIES	
32MB	\$111
16MB	\$62
8MB	\$45
4MB	\$40
PB3400 G3	
128MB	\$208
64MB	\$125
32MB	\$75
16MB	\$60

PB 1400 SERIES

48MB Kit	\$180
24MB	\$90
16MB	\$59
8MB	\$52

PB 2400 SERIES

64MB	\$135
32MB	\$95
24MB	\$80
16MB	\$75

### COMPARE OUR LOW SHIPPING RATES

E-Mail: [sales@llb.com](mailto:sales@llb.com) •  
PO's accepted upon approval  
No surcharge on credit cards  
• Returns subject to restocking fee  
• Prices subject to change, not responsible for errors •  
International orders welcome  
Mail PO's to:  
2791 152nd Avenue N.E.  
Redmond, WA 98052

[www.llb.com](http://www.llb.com) International: 425.881.1880 Fax: 425.881.1930

Circle 209 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)



# Who says you can't teach an old dog new tricks.

It's been 7 years since Macworld's last redesign – that's 49 in dog years. Your Mac has changed and the way you use your Mac has changed – so Macworld is changing too.

Still the faithful companion, Macworld remains your source for expert opinion, unbiased lab reviews and cutting-edge How-to articles. But now it's reorganized and streamlined, with a clean new look.

That's the type of loyalty you need to take advantage of the Web, the DV revolution, and whatever comes next.

## Macworld

Get Smarter

[www.macworld.com](http://www.macworld.com)

Subscribe now: [www.macworld.com/subs](http://www.macworld.com/subs)





MEMORY

DATA MEMORY SYSTEMS - CALL 800-662-7466

Lifetime Memory Guarantee - 30 Day Money Back

AC Adapters  
Batteries  
Cables  
Camera Memory  
DIMMs  
MacCPU Upgrades  
omega Stuff  
Modems  
Monitors  
Networking  
PowerBook Memory  
Printer Memory  
SDRAM  
SIMMs  
Storage Drives  
Surge  
Suppressors



Memory

- ✓ PC66 SDRAM
- ✓ PC100 CL2/CL3
- ✓ PC133 SDRAM
- ✓ ECC & EDO

.....

Networking

- Client/Server Systems
- Ethernet Cards & Conns.
- Hubs
- CAT5 Cabling

DMS has all you need  
to network your business

Since 1986, DMS has provided  
customers with the best mem-  
ory prices, guarantee and  
service anywhere!

Nothing has changed...

Secure Online Shopping  
[www.datamem.com](http://www.datamem.com)



**DMS**  
DATA MEMORY SYSTEMS  
24 Keewaydin Dr.  
Salem, NH 03079  
Fax: 603-898-6585

Circle 213 on card or go to [www.macworld.com/getinfo](http://www.macworld.com/getinfo)

## Classifieds

**CD-ROM Replication by Oasis.** ISO-9002 certified manufacturing. Minimum quantity 200 CD's. Unique packaging options including Oasis Jewel-Free™ Box. [www.oasiscd.com](http://www.oasiscd.com) 888-296-2747

**APPLE MAC REPAIRS** - Soles, Service, Ports. Speak with o **LIVE REP!** 510-581-1370 or visit our website, [www.applemacrepairs.com](http://www.applemacrepairs.com)

**FREE MAC NEWS** - Apple discounts, industry trends, new products: [www.macdirectory.com/pages/newsdaily.html](http://www.macdirectory.com/pages/newsdaily.html)

**MacTreasures** - Macintosh software not found on retail shelves. URL: [www.mactreasures.com](http://www.mactreasures.com) (408) 227-1645

**ROLL CALL CHURCH MANAGEMENT SOFTWARE, ONLINE BIBLE BY THE BOOK** [www.bythebook.com](http://www.bythebook.com) or dial (800) 554-9116

**Macintosh web hosting & QuickTime streaming** - Host your site on secure Mac servers - Publish your FileMaker database on the web - Access like an iDisk! - Stream QT Movies - Plans start @ \$100/year w/50MB of space. [www.macserve.net](http://www.macserve.net)

**POWERBOOK GUY** - The premier source for powerbooks, parts, & accessories! [www.powerbookguy.com](http://www.powerbookguy.com) (510) 533-5500

**DUST COVERS - KEYBOARD SKINS - CARRYING CASES.** Complete selection for the iMac and G-4. 800-872-1946 [www.abcomcorp.com](http://www.abcomcorp.com)

Niki Stranz ([niki\\_stranz@macworld.com](mailto:niki_stranz@macworld.com))  
Carol Johnstone ([carol\\_johnstone@macworld.com](mailto:carol_johnstone@macworld.com))  
(800) 597-1594 or (415) 243-3600.

continued from page 192

Brother from using the TV camera over the toilet.

But scary-sounding high-tech paranoia schemes have been foisted upon us before, and they almost never pan out. Remember the Y2K bug? There were people digging bomb shelters in Montana, for heaven's sake, and a lot of publishers got rich on what turned out to be a marketing scam, for all practical purposes. So far, the theft-of-privacy threat remains mostly in the realm of the theoretical and the someday.

### Spam and Privacy Tragedies

I'm not claiming that there are no downsides to living in a database nation. Junk e-mail, for example, is a true annoyance.

Nor do I need reminders of the real, if isolated, tragedies caused by the abuse of personal information: the credit-report error that haunts someone for years, the wife beater who tracks down his ex-spouse's new address, or the AIDS patient who's denied a job because of medical records. These stories are genuinely upsetting.

But there are costs to fearmongering, too. I know people who have turned off their browsers' cookies (preference files for Web sites) out of paranoia—and who therefore have to type out convoluted user IDs and access codes with every visit to a restricted site. Thousands of people refuse to buy anything online—never mind that their credit card numbers are at infinitely greater risk of being stolen at a gas station or restaurant. I know a guy who pays for everything at stores, in cash, for fear of giving any private information to anyone. But take it from someone whose credit card company refunds 2 percent of his annual purchases: that kind of paranoia can cost you.

Look, I don't want Big Business to invade every corner of our lives. I'll back any law against sending spam, sharing medical records, or collecting our personal data without telling us. My issue is with the marketing of privacy hysteria. There are different ways to lose your privacy—and not all are scary. **m**

DAVID POGUE ([www.davidpogue.com](http://www.davidpogue.com)) is a coauthor of the forthcoming *Piloting Palm*, the story of Palm Computing (O'Reilly).



DAVID POGUE

# Take My Privacy, Please

COULD SOMEBODY  
REMIND ME WHY  
WE'RE PANICKING?



**H**ey, want to have an instant best-seller? Write a book about the loss of privacy in the Information Age. Want to sell newspapers? Run a headline about how the evil Software Conspiracy tracks our every move. Movie? Novel? Party conversation? With high-tech surveillance, you've got yourself a winning theme.

I don't dispute that some tracking is going on. Our phone calls, credit card transactions, and plane reservations have been recorded on some computer somewhere, for years. No, what I'd like to know is, what—in practical, nonhysterical terms—is *wrong* with this kind of data collection? Reporters, moviemakers, and publishers have glommed on to the invasion-of-privacy thing because it sells, but the thinking never seems to go much further than *They're watching you*.

So, aside from our visceral negative reactions, what's the downside? The few possibilities I've come across revolve around these arguments:

• **We'll be targeted by marketers.**

If you visit Amazon.com, you're greeted by ads for books in categories you've bought from recently. When you do a search for car information on Yahoo, the results page may offer a car ad at the top of the screen.

The writing is on the wall: Pretty soon, they'll send us ads *targeting our interests!*

And the problem is . . . ? I say, bring it on! If I have to look at advertising, why not see ads for

products that interest me, for heaven's sake? My interests are Macs, gadgets, Broadway musicals, magic, tennis, books, kids—let the targeting begin!

No, our problem is that not *enough* ads are aimed at specific audiences. When companies spend millions to show me ads for SUVs and adult diapers, they're wasting their dollars and my time.

• **We'll be caught.** Nobody wants to get caught being naughty. People hate the thought that their criminal, extramarital, or pornographic interests might one day come to light.

In my book, that's a pretty flimsy reason for championing privacy. If you want only to cover up violations of the law—moral, marital, or other—your problem isn't the threat of losing privacy; it's living in a society that has laws and a conscience.

• **Our information will be made public someday.** No doubt about it: life as a political candidate or celebrity is no picnic. Thanks to massive databases that shadow our every life event, public officials are open to scrutiny by every reporter and opponent.

On the other hand, aren't we better off knowing about Richard Nixon's deception, Gary Hart's affair, Bill Clinton's draft dodge? Whether you're a supporter or an opponent, knowing is better than not knowing.

• **It's just creepy.** It is creepy to think that someone is watching us. It makes us nervous, fuels dramatic opinion columns, and keeps the producers of *Big* continues on page 191



**The  
New!**

XANTÉ

# ColourLaser™



## Serious Color.

**Photo Quality Color • True Adobe® PostScript® 3™ • Up to 13" x 19" output • Starting at \$3,995**

The new XANTÉ® ColourLaser™ provides rich, full color and crisp text with resolutions up to 1200 x 1200 dpi on a wide range of media.

Combine oversize full bleed capabilities of 13" x 19" with true Adobe® PostScript® 3™, fast RISC processing, and sophisticated color management/matching capabilities and you've got the perfect color printing and proofing solution. Ranging from business printing to

high end graphics for the color conscious designer – XANTÉ has the right color printer to fit your needs.



**Call 800-926-8839 ext.2167**

**fax 334-473-6503**

**[xante.com/mw6](http://xante.com/mw6)**



**Adobe® PostScript® 3™**



©2000 XANTÉ CORPORATION. XANTÉ and XANTÉ ColourLaser are trademarks or registered trademarks of XANTÉ CORPORATION. Adobe, PostScript, PostScript 3 and the PostScript logo are trademarks of Adobe Systems Incorporated. PANTONE Fan Chip Logo and other Pantone, Inc. trademarks are the property of Pantone, Inc. XANTÉ CORPORATION. Post Office Box 16526, Mobile, AL 36616-0526, USA. Phone: 334-473-6502, Fax: 334-473-6503. [www.xante.com](http://www.xante.com)



# Yeah, we're one of those obnoxious over-achieving families.



**Turbo Mouse:** Runs successful Internet start-up.



**Orbit:** Handsome champion surfer.



**Mouse-in-a-Box:** Attending Yale this Fall.

You know the kind. Good at everything. Got it all. Loathed by everyone on the block. But our family's a little different — people can feel good about our success. Because for every generation of Mac® computers — from the venerable Mac Classic to the brand new Power Mac G4 Cube, we've created an equally dynamic generation of input devices people love. Our latest family is the first and only to offer USB and ADB connectivity. Whether you choose our entry level Mouse-in-a-Box®, the Orbit® trackball, or the more advanced Turbo Mouse®, you'll find yourself working smarter and more comfortably than ever. Who knows? Maybe you'll end up inspiring a little envy, too. Find out more about our input devices at [www.macfamily.kensington.com](http://www.macfamily.kensington.com).

**KENSINGTON®**

Smart design at work.